FURTHER NOTES ON AUSTRALIAN COLEOPTERA, WITH DESCRIPTIONS OF NEW GENERA AND SPECIES.
NO. XXXIX.

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LAMELLICORNES.

SERICIDES.

DIPHUCEPHALA.

In the tabulated statement of the distinctive characters of species of this genus in Tr. R.S., S.A., 1906, the following correction is required:—On page 268, line 48, and 269, line 1, for "elytra" read "prothorax." Also transfer the name "ignota, *Macl.*," from line 3 on page 269 to line 49 on page 268.

D. ignota, Macl.
D. nitens, Macl.
D. rufipes, Macl.
These three species are affected by the correction notified above.

SERICOIDES.

HETERONYX (continued).

GROUP III.

The hitherto published names that can confidently be assigned to species of this group are 17 in number, and there are also 4 species the descriptions of which indicate their place as being in either this or the following group—that is to say, they have the labrum below the level of the clypeus, and antennæ of 9 joints, while there is no record of their claw structure. Two of them are Tasmanian species, described by Erickson (*præcox* and *tempestivus*), which I think I know as members of Group IV., although I have not seen the types. It is worthy of note here that scarcely any Tasmanian *Heteronyces* known to me have bifid claws. One of the remaining two (*laticeps*) was described by Burmeister and attributed to "Australia." I am afraid that *laticeps* could be identified only by examination of the type, not only through want of information regarding its claws but on account of there being some flaw in the description, the species being said to be somewhat larger than "*die vorigen arten*," while the size is given as smaller than of one of the preceding species, and the wording of the comparison seems quite inconsistent with its referring to the immediately preceding *H. granum* (*e.g.*, the size is given as more than three times that of *granum*). The general character of the description indicates resemblance to some of the species in Group IV., and not much resemblance to any species known to me of the present group. The last of these four doubtful species (*pilosellus*, Blanch.) is almost certainly, I think, a member of the first subgroup of Group IV.; its large size and the nature of its sculpture and pubescence point strongly in that direction. It should be borne in mind, however, that in the absence of definite information of claw structure, there is a bare possibility of any or all of the four appertaining to this group. Outside the 21 names referred to above, I believe it may be asserted confidently that no name as yet applied to a *Heteronyx* represents a species of this group, unless it be among those few names to which there is no description attached mentioning any character that identifies its subject with any group at all, of which I propose to furnish a list at the end of this Revision.

Of the 17 identifiable names referred to above, two are synonyms, namely, *breviceps*, Blackb., and *fissiceps*, Blackb., the former of which is identical with the type of *H. rufopiceus*, Macl., in the Macleay Museum, and the latter with the specimen (almost certainly a type or co-type) of *H. (Melolontha) chlorotica*, Gyll., in the same Museum. Neither of these two could have been identified by the description. Thus I recognize 15 already described species of *Heteronyx* as members of this group, and to them I have now to add 19 more species, making a total of 34.

The only group with which any members of the present group could possibly be confused is Group IV., but it must be admitted that there is a small number of species concerning which doubt is possible as to whether their claws should be called appendiculate or bifid. Separate notes on those species seem necessary since I have treated them as having appendiculate claws of which the inner apex of the basal piece is somewhat abnormally prolonged, and it is possible that their names might be looked for in the tabulation of this present group where of course they would not be found. They are as follows:—

H. *holosericeus*, Macl. The inner apex of the basal piece of the claws is scarcely less than half the size of the apical prolongation, and I should perhaps place the species in Group III. were it not for its close alliance with species of the first subgroup of Group IV., which consists of the most naturally associated species known to me in the genus. Among the insects which I have placed in Group III. there is none resembling *holo-*

sericeus in the conspicuous characters of being of large size and also having elytra very finely and closely punctulate. A careful examination of the claws of *holosericeus* indicates that they are really appendiculate, and that the hinder process, although longer than usual, is nothing but a slender prolongation of the apex of the basal piece of the claw, notably more slender than the apical piece; whereas the corresponding process in a claw which I account bifid is (I think in every species whose claws could possibly be confused with those of *holosericeus* and a few others with like claws) a compressed more or less triangular tooth which from the right point of view (*i.e.*, with its compressed face opposite the observer) is seen to be at least as wide and stout as the apical process.

H. Coatesi, Blackb The above comments on *H. holosericeus* apply also to this species.

H. severus, Blackb. The claws of this species are of the same kind as those of *H. holosericeus*, although the hinder process is perhaps scarcely long enough to be likely to cause any doubt of the claws being appendiculate.

H. relictus, Blackb. The claws of this species are not quite simply appendiculate, the apical piece being smaller than usual and the long basal piece being distinctly produced at its inner apex, so that from a point of view making the apical piece appear foreshortened the claw has a bifid appearance; but looked at so that the outline of the compressed face of the claw is wholly opposite the observer, the apical piece is seen to be much longer than the projection at the inner apex of the basal piece.

Among the species that I have placed in this group I do not think there is any whose claws could be regarded as other than bifid. In a few of them the hinder process of the claw is situated exceptionally far back on the claw, but in these species this hinder process is so evidently of well-defined compressed triangular form that it does not seem capable of suggesting any difficulty.

In dealing with this the first large group of *Heteronyces* it seems desirable to remark on the fact that I am somewhat at a disadvantage (in having written an earlier series of papers, founded on a much smaller number of species, before the enormous extent of the genus had become apparent), insomuch as species that came near to each other in my former paper are now in many instances separated by a considerable number of subsequently discovered intermediate species requiring a more scrupulously exact description of sculpture, etc., and also involving a readjustment of classification, an investigation and use of characters that did not seem essential for mention among a much smaller number of species, and the discovery in the case of some characters that they are less useful for purposes of tabulation than they appeared in dealing with less numerous forms. I do not think that my former papers contained more than a very small number of actual errors; these, however, will be corrected under the heading of the species affected by them (*e.g.*, *H. insignis*, Blackb.). But it is possible that here and there slight discrepancies of terms may be found between some of the descriptions in my former paper and those used now (such as "fine" or "not very fine" in respect of sculpture), arising from species now being grouped among many that were formerly not known to me, and to obviate confusion from that inevitable difficulty I have in this present Revision indicated by an approximate counting of punctures exactly what is meant in each case by such terms as "close," "sparse," "fine," *vel cet.*

Tabulation of the distinctive characters of *Heteronyces* of Group III.:—

A. Front of clypeus not having a deep excision.

B. Labrum not visible (head viewed obliquely from behind).

C. Hind femora not having a tooth before the apex.

D. Hind femora wide with 2 conspicuous rows of punctures between which is a wide, almost unpunctured space.

E. Hind row of punctures on hind femora widely spaced and not more than about 10.

F. Front of clypeus truncate or lightly sinuate.

G. Sides of prothorax straight behind middle, hind corners genuinely (though not sharply) rectangular ... ... piceo-niger, *Macl.*

GG. Sides of prothorax more or less arched behind middle, hind corners not rectangular.

H. Elytra (outside subsutural stria) non-striate.

I. Elytral puncturation squamose ... ... corpulentus, *Macl.*

II. Elytral puncturation non-squamose.

J. Basal edging of pronotum strong and conspicuous ... ... protervus, *Blackb.*

JJ. Basal edging of pronotum extremely fine, except at its ends ... ... rufopiceus, *Macl*

HH. Each elytron with about 6 striæ clearly indicated.

I. Prothorax (viewed from above) with strongly defined hind angles.

J. Pronotum at hind angles extremely strongly flattened out ... ... Oodnadattæ, ***Blackb.***

JJ. Hind angles of pronotum much less strongly flattened out.

K. Puncturation of elytra strongly seriate (size at least 4½ l.) ... merus, ***Blackb.***

KK. Puncturation of elytra not seriate (size about 3 l.) ... ... declaratus, ***Blackb.***

II. Hind angles of prothorax quite rounded off ... ... Beltanæ, ***Blackb.***

FF. Front of clypeus evenly rounded.

G. Front face of labrum (viewed from in front) arched.

H. About 15 punctures across an elytron. Clypeal suture very little arched ... ... tarsalis, ***Blackb.***

HH. About 20 punctures across an elytron. Clypeal suture strongly arched ... ... Griffithi, ***Blackb.***

GG. Front face of labrum (viewed from in front) not arched ... ... suavis, ***Blackb.***

EE. Hind row of punctures on hind femora closely packed (about 15-20 in number).

F. Basal joint of hind tarsi considerably longer than 3rd joint.

G. Punctures of pronotum acervate and sparse (10 or 12 in length of the segment).

H. Punctures of frons very large and not very close ... ... tropicus, ***Blackb.***

HH. Punctures of frons much finer and closer solidus, *Blackb.*

GG. Punctures of pronotum not acervate (about 16 in length of the segment).

H. Elytra with the actual derm strongly rugulose rugosipennis, *Macl.*

HH. Elytra not exceptionally rugulose ... ... tenebrosus, *Blackb.*

FF. Basal joint of hind tarsi not or scarcely longer than 3rd joint.

G. Elytra non-granulate, their punctures not squamose.

H. The punctures of the elytra much larger than those of the pronotum ... ... incomptus, *Blackb.*

HH. Punctures of pronotum and of elytra scarcely different in size ... ... umbrinus, *Blackb.*

GG. Elytra conspicuously granulate, their punctuation strongly squamose arcanus, *Blackb.*

DD. Hind femora (less wide) with numerous punctures in the space between the two rows.

E. Basal edging of pronotum strongly defined and preceded by a conspicuous smooth gutter ... ... dux, *Blackb.*

EE. Base of pronotum not as E.

F. Puncturation of pronotum not both very close and strongly rugulose.

G. The front of the frons not perpendicular.

H. Elytra closely and finely punctured (considerably more than 20 punctures across an elytron).

I. The sculpture of the clypeus is subconfluent rugulosity ... ... æqualiceps, *Blackb.*

II. The sculpture of the clypeus is coarse, well spaced puncturation ... ... firmus, *Blackb.*

HH. Elytra punctured not closely (20 punctures or less across an elytron).

I. Hind coxæ much longer than 2nd ventral segment ... ... Frenchi, *Blackb.*

II. Hind coxæ scarcely longer than 2nd ventral segment ... ... darlingensis, *Blackb.*
GG. The front of the frons perpendicular ... ...
H. Clypeus strongly truncate ... ... Leai, *Blackb.*
HH. Clypeus evenly rounded ... ... Callabonnæ, *Blackb.*
FF. Puncturation of pronotum both very close and strongly rugulose.
G. Puncturation of elytra coarse and not close (less than 20 punctures across an elytron) ... ... variegatus, *Blackb.*
GG. Puncturation of elytra much finer and closer ... imitator, *Blackb.*
CC. Hind femora with a strong tooth near apex ... ... femoralis, *Blackb.*
BB. Labrum visible (the head being viewed obliquely from behind).
C. The ends of the labrum project as small, sharp processes ... ... granum, *Burm.*
CC. The ends of the labrum not prominent ... ... luteolus, *Blackb.*
AA. Front of clypeus with an extremely deep excision.
B. Head strongly punctulate.
C. Labrum on middle line not exserted from perpendicular front of clypeus ... ... asperifrons, *Blackb.*
CC. Labrum on middle line considerably exserted from perpendicular front of clypeus.
D. Elytra closely and finely punctulate (10 punctures from suture not nearly reaching middle) ... ... chlorotica (Melolontha), *Gyll.*
DD. Elytra with large, sparse punctures (10 punctures from suture reach middle) ... ... queenslandicus, *Blackb.*
B. Head (even clypeus) scarcely visibly punctulate ... ... læviceps, *Blackb.*

11. *Oodnadattæ*, sp. nov. Elongato-ovatus; sat nitidus; castaneo-brunneus, antennarum flabello dilutiori; supra pilis sparsis brevibus suberectis vestitus; subtus sparsim pilosus; clypeo crebre sat grosse ruguloso, antice late leviter sinuato; labro summo clypei planum haud attingenti; fronte grosse nec crebre punctulata; fronte clypeoque planum fere continuum efficientibus; antennis 9-articulatis; prothorace quam longiori ut 12 ad 7 latiori, antice minus fortiter angustato, supra sparsim acervatim puncturis inæqualibus (sat grossis et magis subtilibus) impresso (puncturis circiter 14 in segmenti longitudine),

lateribus sat arcuatis, angulis anticis vix acutis sat productis posticis (superne visis) sat rectis sat fortiter deplanatis, basi modice bisinuata, margine basali ad latera paullo magis elevato; elytris fortiter seriatim (minus æqualiter) minus crebre punctulatis (trans elytron puncturis circiter 15), striatis, interstitiis leviter convexis; pygidio sparsim fortiter punctulato; coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} sat longioribus; tibiis anticis extus dentibus 2 inferioribus permagnis et dente superiori parvo; femoribus posticis dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 8, inter series area lævi; tarsorum posticorum articulo basali quam 2^{us} sat (quam 3^{us} paullo) breviori; unguiculis bifidis. Long., 6½-7 l.; lat., 3⅕-3⅖ l.

Somewhat close to *H. piceoniger*, Macl., but differing in colour, in its smaller head, in the sides of its prothorax considerably more arched, and in the less close and more seriate puncturation of its elytra. Also near *merus*, Blackb., but differing from that species by, *inter alia*, the better defined and considerably more expanded hind angles of its pronotum.

Central Australia; Oodnadatta.

H. declaratus, sp. nov. Minus elongatus; minus nitidus; obscure brunneus; supra pilis brevibus adpressis sparsim vestitus; subtus sparsim pilosus; clypeo crebre ruguloso, antice late leviter sinuato; labro summo clypei planum haud attingenti; fronte sat grosse ruguloso-punctulata; fronte clypeoque ut plana disparia visis (sutura clypeali cariniformi); antennis 9-articulatis; prothorace quam longiori ut 7 ad 4 latiori, antice sat angustato, supra sparsius subtiliter punctulato (puncturis circiter 16 in segmenti longitudine), lateribus sat arcuatis, angulis anticis minus acutis minus productis posticis (superne visis) sat rectis, basi leviter bisinuata, margine basali subtilissimo; elytris crebre subtilius punctulatis (trans elytron puncturis circiter 30), striatis, interstitiis vix convexis; pygidio coriaceo sparsim subtilius punctulato; coxis posticis quam metasternum multo brevioribus, quam segmentum, ventrale 2^{um} sat longioribus; tibiis anticis extus tridentatis; femoribus posticis sat dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 10, inter series area fere lævi; tarsorum posticorum articulo basali quam 2^{us} vix breviori, quam 3^{us} paullo longiori, unguiculis bifidis. Long., 3 l.; lat., 1⅗ l.

A very isolated species, which seems out of place among the species with which its structural characters associate it. Its hind femora considerably dilated, with their front out-

line quite strongly arched and the space between their series of punctures bearing only one or two fovea-like impressions, appear to me a strong mark of alliance with *corpulentus*, Macl., and its allies; and its short, wide clypeus with front margin widely sinuate points in the same direction. *Corpulentus*, etc., are, however, large species with coarse, sparse sculpture and different vestiture.

North Queensland (Mr. Perkins).

H. tarsalis, sp. nov. Modice elongatus, postice vix dilatatus; sat nitidus; castaneus vel brunneus; supra fere glaber; subtus sparsim pilosus; clypeo sat crebre minus rugulose sat grosse punctulato, antice late rotundato; labro summo clypei planum haud attingenti; fronte vix crebre sat grosse nec rugulose punctulata; fronte clypeoque planum sat continuum efficientibus; antennis 9-articulatis; prothorace quam longiori ut 5 ad 3 latiori, antice sat angustato, supra minus fortiter minus crebre punctulato (puncturis circiter 16 in segmenti longitudine), lateribus leviter arcuatis, angulis anticis subacutis modice productis posticis (superne visis) sat rectis, basi leviter bisinuata, margine basali subtili sat æquali; elytris leviter sparsim subseriatim punctulatis (trans elytron puncturis circiter 15), manifeste striatis, interstitiis nonnihil convexis; pygidio sparsim minus fortiter punctulato; coxis posticis quam metasternum multo brevioribus quam segmentum ventrale 2^{um} sat longioribus; tibiis anticis extus tridentatis; femoribus posticis sat dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 6, inter series area fere lævi; tarsorum posticorum articulo basali quam 2^{us} multo (quam 3^{us} manifeste) breviori; unguiculis bifidis. Long., 3-5 l.; lat., $1\frac{3}{5}$-$2\frac{3}{5}$ l.

The most conspicuous superficial characters of this species seem to be the sparse, subseriate, lightly impressed puncturation of its elytra and the shortness of the basal joint of its hind tarsi. Its head is small and narrow as compared with that of some of its allies (*e.g.*, *H. corpulentus*, Macl.). It is easily identified by the characters assigned to it in the tabulation. It varies greatly in size, the small specimens being, I think, males. The hinder tooth of the hind claws is situated far back—not much in front of the middle of the claw.

North-West Australia.

H. Griffithi, sp. nov. Sat elongatus, postice parum dilatatus; sat nitidus; obscure brunneus, antennarum flabello testaceo; supra fere glaber; subtus sparsim pilosus; clypeo sat crebre sat grosse nec rugulose punctulato; labro summo clypei planum haud attingenti; fronte spar-

sim vix grosse punctulata; fronte clypeoque ut plana manifeste disparia visis; antennis 9-articulatis; prothorace quam longiori ut 12 ad 7 latiori, antice modice angustato, supra subtilius minus crebre punctulato (puncturis circiter 18 in segmenti longitudine), lateribus parum arcuatis, angulis anticis sat acutis sat productis posticis (superne visis) acute rectis, basi subfortiter bisinuata, margine basali modico ad latera paullo magis elevato; elytris concinne sat fortiter subcrebre nonnihil subseriatim punctulatis (trans elytron puncturis circiter 20), manifeste striatis, interstitiis leviter convexis, pygidio sparsius minus fortiter punctulato; coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} multo longioribus; tibiis anticis extus dentibus 2 inferioribus permagnis et dente superiore parvo; femoribus posticis dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 10, inter series area lævi; tarsorum posticorum articulo basali quam 2^{us} multo (quam 3^{us} manifeste) breviori; unguiculis bifidis. Long., $5\frac{1}{2}$ l.; lat., $2\frac{4}{5}$ l.

The sides of the prothorax are less arched than in most of the allied species, and the point where they begin to be roundly convergent is nearer to the front margin, making the segment appear less transverse than it really is. The front of the clypeus is much more strongly reflexed than in *H. tarsalis*, Blackb. (which the species resembles in respect of its small head and tarsal structure), the clypeal suture is very much more strongly arched, the pronotum is notably more finely punctulate, the punctures of the elytra are smaller, deeper, and closer, and the hinder process of the hind claws is nearer to the apical process.

Northern Territory of South Australia (Mr. Griffith).

H. suavis, sp. nov. Minus elongatus, postice leviter dilatatus; sat nitidus; castaneus vel brunneus; supra fere glaber; subtus sparsim pilosus; clypeo sat crebre sat grosse nec rugulose punctulato; labro clypei planum haud attingenti, in parte summa antica haud transversim convexo; fronte vix crebre subgrosse nec rugulose punctulata; fronte clypeoque ut plana leviter disparia visis; antennis 9-articulatis; prothorace quam longiori ut 12 ad 7 latiori, antice modice angustato, supra subfortiter vix crebre punctulato (puncturis circiter 18 in segmenti longitudine), lateribus parum arcuatis, angulis anticis sat acutis sat productis posticis (superne visis) rectis (vix acute), basi minus fortiter bisinuata, margine basali modico ad latera vix magis elevato; elytris concinne sat fortiter subcrebre nonnihil subseriatim punc-

tulatis (trans elytron puncturis circiter 20), manifeste striatis, interstitiis parum convexis; pygidio sparsius minus fortiter punctulato; coxis pedibusque ut *H. Griffithi*, Blackb. Long., $4\frac{1}{2}$-$5\frac{3}{5}$ l.; lat., $2\frac{1}{5}$-3 l.

This species is closely allied to *H. Griffithi*, Blackb., differing by its pronotum less finely punctulate, with hind angles (viewed from above) blunter, and especially by the structure of its labrum. In *Griffithi* (and most other *Heteronyces* of the first four groups) that organ is longitudinally concave, so that if it be looked at from in front its front face is seen as an arch having its convex outline curved upward towards the clypeus, while in the present species the labrum is quite flat, so that when looked at from in front its outline appears perfectly straight transversely. As I have examined four specimens of *H. suavis* (evidently—from their ticketing—taken in company) I am able to say that this is a reliable character.

North Queensland; Gulf of Carpentaria (Mr. Koebele).

H. tropicus, sp. nov. Minus elongatus, postice parum dilatatus; sat nitidus; piceo-ferrugineus, antennis dilutioribus; supra fere glaber, capillis nonnullis erectis exceptis; clypeo confertim sat fortiter ruguloso, antice late leviter sinuato; labro summo clypei planum haud attingenti; fronte crebrius grosse punctulata; fronte clypeoque ut plana sat disparia visis (illa sat convexa); antennis 9-articulatis; prothorace quam longiori ut 15 ad 8 latiori, antice sat fortiter angustato, longitudinaliter subtiliter subcanaliculato, supra sparsim acervatim puncturis inæqualibus (sat grossis et magis subtilibus) impresso (puncturis circiter 10 in segmenti longitudine), lateribus minus arcuatis, angulis anticis acutis sat productis posticis (superne visis) rectis, basi modice bisinuata, margine basali ad latera perspicue magis elevato; elytris fortiter minus crebre punctulatis (trans elytron puncturis circiter 20); pygidio sparsius sat fortiter punctulato, exempli typici basin versus carinato apicem versus longitudinaliter concavo; coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 15, inter series area lævi; tibiis anticis extus tridentatis; tarsorum posticorum (his sat brevibus) articulo basali 2^{o} sat æquali, quam 3^{us} multo longiori; unguiculis bifidis. Long., 7 l.; lat., $3\frac{3}{5}$ l.

The hind series of punctures on the hind femora of this and a number of following species not only consists of many more punctures than in the preceding species, but also differs in that the punctures, from a certain point of view, appear to be situated behind and against a continuous serrate finely raised line, an appearance which seems to be caused by the punctures being more deeply impressed at their front than at their hind end. I suspect that the slight canaliculation of the pronotum in the type may not be a constant character.

North Queensland (Mr. Perkins): also Thursday Island.

H. tenebrosus, sp. nov. Latus, sat brevis, postice dilatatus; sat nitidus; nigro-piceus, palpis antennisque rufis; supra capillis erectis vestitus; clypeo fortiter sat crebre nec rugulose punctulato antice late leviter sinuato-truncato; labro summo clypei planum haud attingenti; fronte grosse subcrebre nec rugulose punctulata; fronte clypeoque ut plana valde disparia visis (illa convexa); antennis 9-articulatis; prothorace quam longiori ut 15 ad 8 latiori, antice sat angustato, supra subfortiter vix crebre punctulato (puncturis circiter 16 in segmenti longitudine) lateribus minus arcuatis, angulis anticis sat acutis sat productis posticis (superne visis) rectis, basi sat fortiter bisinuata, margine basali ad latera vix magis elevato: elytris granulatis subsquamose fortiter crebrius punctulatis (trans elytron puncturis circiter 22); pygidio crebrius fortius punctulato; coxis posticis quam metasternum paullo brevioribus quam segmentum ventrale 2^{um} multo longioribus; femoribus posticis dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 20, inter series area lævi; tibiis anticis extus tridentatis (dentibus inferioribus 2 permagnis); tarsorum posticorum articulo basali quam 2^{us} vix breviori quam 3^{us} sat longiori; unguiculis bifidis. Long., 6-7 l.; lat., $3\frac{1}{5}$-$3\frac{4}{5}$ l.

A very robust, solid-looking species, of very dark colour. It is readily distinguishable among its allies by the characters indicated in the tabulation.

North-West Australia; Roebuck Bay.

H. incomptus, sp. nov. Sat elongatus, postice dilatatus; sat nitidus; ferrugineus; supra capillis erectis elongatis minus sparsim vestitus; clypeo crebre vix grosse ruguloso, antice rotundato; labro summo clypei planum haud attingenti; fronte fortiter rugulose sat crebre punctulata; fronte clypeoque ut plana valde disparia visis (illa convexa); antennis 9-articulatis; prothorace quam longiori ut 7 ad 4 latiori, antice sat fortiter angustato, supra fortiter minus crebre punctulato (puncturis circiter 15 in segmenti longitudine), lateribus modice arcuatis, angulis anticis sat acutis modice productis posticis

(superne visis) sat rectis, basi parum sinuata, margine basali ad latera paullo magis elevato; elytris subgrosse subrugulose sat crebre punctulatis (trans elytron puncturis circiter 20): pygidio puncturis setiferis sparsius impresso; coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2$^{\text{um}}$ sat longioribus; femoribus posticis dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 17, inter series area fere lævi; tibiis anticis extus tridentatis: tarsorum posticorum articulo basali quam 2$^{\text{us}}$ multo (quam 3$^{\text{us}}$ nonnihil) breviori: unguiculis bifidis. Long., 7 l.; lat., $3\frac{2}{5}$ l.

The very long pilosity—which is not very sparse—of this species renders it easily recognizable among its near allies, even disregarding the characters indicated in the tabulation. The area on the hind femora between the two series of punctures bears four or five large punctures near to the base of the femora.

New South Wales: Inverell (Mr. Musson).

H. umbrinus, sp. nov. Sat elongatus, postice vix dilatatus; minus nitidus: obscure brunneus, antennis palpisque dilutioribus; supra pilis adpressis brevibus (nonnullis longioribus erectis intermixtis) sat sparsim vestitus; clypeo confertim minus grosse ruguloso, antice late rotundato; labro summo clypei planum haud attingenti; fronte fortiter minus crebre punctulata; fronte clypeoque ut plana nonnihil disparia visis; antennis 9-articulatis; prothorace quam longiori ut 12 ad 7 latiori, antice leviter angustato, supra sat fortiter sat sparsim nonnihil acervatim punctulato (puncturis circiter 12 in segmenti longitudine), lateribus sat arcuatis, angulis anticis sat acutis minus productis posticis (superne visis) obtusis bene determinatis, basi parum sinuata, margine basali sat æquali; elytris concinne sat fortiter sat crebre punctulatis (trans elytron puncturis circiter 20); pygidio fortius minus crebre punctulato; coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2$^{\text{um}}$ sat longioribus: femoribus posticis dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 15, inter series area lævi; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2$^{\text{us}}$ sat breviori, 3$^{\text{o}}$ sat æquali: unguiculis bifidis. Long., 6 l.; lat., $2\frac{4}{5}$ l.

Easily recognizable by the characters cited in the tabulation.

North Queensland (Mr. Perkins).

H. dux, sp. nov. Minus elongatus, postice parum dilatatus; sat nitidus; brunneus, antennis palpisque dilutioribus;

supra pilis adpressis brevibus (nonnullis longioribus erectis intermixtis) sat sparsim vestitus; clypeo crebre fortiter parum rugulose punctulato, antice rotundato; labro summo clypei planum haud attingenti; fronte fortiter minus crebre nec rugulose punctulata; fronte clypeoque planum fere continuum efficientibus; antennis 9-articulatis; prothorace quam longiori ut 15 ad 8 latiori, antice sat angustato, supra minus fortiter minus crebre punctulato (puncturis circiter 15 in segmenti longitudine), lateribus leviter arcuatis, angulis anticis sat acutis modice productis posticis (superne visis) sat acute rectis, basi parum sinuata, margine basali sat æquali pone sulcum manifestum sito; elytris granulatis subsquamose sat crebre punctulatis (trans elytron puncturis circiter 20); pygidio granulis setiferis minus crebre instructo; coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2^{um} paullo longioribus; femoribus posticis sat dilatatis, biseriatim punctulatis, seriei posticæ puncturis circiter 20, inter series area confuse sparsim punctulata; tibiis anticis extus fortiter tridentatis; tarsorum posticorum articulo basali quam 2^{us} multo vel paullo (quam 3^{us} vix vel haud) breviori; unguiculis bifidis. Long., $6\frac{2}{5}$-7 l.; lat., $3\frac{1}{5}$-$3\frac{3}{5}$ l.

This species is distinctly intermediate between those preceding it and those following it in the tabulation, being (like the former) of large size and having dilated hind femora, but having (like the latter) the space on the hind femora between the seriate punctures impressed with confused puncturation. It is remarkable for a more than usually well-marked sexual character in the hind tarsi, the basal joint being in one sex (I take it to be the male) quite distinctly longer than in the other sex. It may be noted that the pronotum in this species is punctured considerably more finely than the head and the elytra. There is a remarkable agreement in the present insect with the description of *H. rugosipennis*, Macl., but the type in the Australian Museum differs in numerous characters passed over in the description, being smaller, differently coloured, with elytra more rugulose and less closely punctulate, the hind femora non-punctulate between the series, etc., etc.

Queensland (Mr. F. M. Bailey).

H. firmus, sp. nov. Minus elongatus, postice leviter dilatatus; sat nitidus: obscure brunneus, corpore subtus antennis palpis pedibusque plus minusve dilutioribus; supra pilis brevibus adpressis sat sparsim vestitus; clypeo (hoc antice sinuato-truncato) fronteque grosse minus crebre sat æqualiter punctulatis; his planum fere continuum efficientibus: labro clypei planum haud attingenti; antennis 9-articulatis; prothorace quam longiori ut 7 ad 4 latiori, antice leviter angustato, supra sat fortiter sat crebre punctulato (puncturis circiter 23 in segmenti longitudine), lateribus sat fortiter arcuatis, angulis anticis sat acutis modice productis posticis (superne visis) obtusis bene determinatis, basi parum sinuata, margine basali subtilissimo sat æquali sed in media parte summa fere obsoleto; elytris substriatis, crebre sat fortiter punctulatis (trans elytron puncturis circiter 30); pygidio sat crebre minus fortiter punctulato: coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2^{um} vix longioribus; femoribus posticis minus dilatatis, sparsim confuse punctulatis, seriebus parum conspicuis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} sat breviori, 3^{o} sat æquali: unguiculis bifidis. Long., $3\frac{3}{5}$ l.; lat., $1\frac{4}{5}$ l.

This species is easily distinguishable from all others known to me of this group by the characters cited in the tabulation. It is a species of decidedly robust facies.

New South Wales: Mount Kosciusko (from Mr. Lea).

H. Frenchi, sp. nov. Minus elongatus, postice leviter dilatatus; minus nitidus; brunneus antennis palpisque dilutioribus; supra pilis brevibus suberectis minus sparsim vestitus; clypeo confertim ruguloso, antice in media parte leviter emarginato; labro summo clypei planum haud attingenti; fronte grosse sat crebre punctulata; fronte clypeoque ut plana disparia visis, illa convexa; antennis 9-articulatis; prothorace quam longiori ut 3 ad 2 latiori, antice fortiter angustato, supra subgrosse sat crebre punctulato (puncturis circiter 15 in segmenti longitudine), lateribus pone medium dilatato-rotundatis, angulis anticis leviter obtusis haud productis posticis valde obtusis (fere rotundatis), basi sat fortiter bisinuata, margine basali subtilissimo (in media parte obsoleto); elytris fere ut pronotum sed nonnihil rugulose punctulatis (trans elytron puncturis circiter 16); pygidio sat grosse sat crebre punctulato: coxis posticis quam metasternum paullo brevioribus quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis minus dilatatis, inter series confuse sparsius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali, 2^{o} sat æquali, quam 3^{us} paullo longiori; unguiculis bifidis. Long., $3\frac{1}{5}$ l.; lat., $1\frac{3}{5}$ l.

This species can be distinguished quite easily by the characters indicated in the tabulation, as well as by other

characters cited in the above description, especially the form of its prothorax and the coarse, somewhat uniform puncturation of its dorsal surface.

North-West Australia (Mr. French).

H. Leai, sp. nov. Sat elongatus, postice sat dilatatus; sat nitidus; ferrugineus; supra pilis perbrevibus erectis sparsim vestitus; clypeo fortiter sparsius nec rugulose punctulato, antice truncato fortiter reflexo; labro summo clypei planum haud attingenti; fronte fortiter minus sparsim nec rugulose punctulata; fronte clypeoque ut plana valde disparia visis, illa antice abrupte declivi; antennis 9-articulatis; prothorace quam longiori ut 7 ad 4 latiori, antice minus angustato, supra subtilius minus crebre punctulato (puncturis circiter 20 in segmenti longitudine, lateribus modice rotundatis, angulis anticis sat obtusis modice productis posticis obtusis minus rotundatis, basi modice bisinuata, margine basali subtili sat æquali; elytris fortiter (fere subgrosse) punctulatis (trans elytron puncturis circiter 20), nonnihil substriatis; pygidio crebre minus profunde punctulato; coxis posticis quam metasternum multo brevioribus quam segmentum ventrale 2$^{\text{um}}$ sat (nec multo) longioribus; femoribus posticis haud dilatatis, inter series confuse nec crebre punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2$^{\text{us}}$ vix breviori, 3$^{\text{o}}$ sat æquali; unguiculis bifidis. Long., $3\frac{4}{5}$ l.; lat., $1\frac{4}{5}$ l.

A little intermediate in the form of its frons in respect of the front declivity, which is not so abruptly perpendicular as in the following species (*H. Callabonnæ*). From a certain point of view (obliquely from the side) it appears to be perpendicular, but viewed slightly obliquely from in front is seen not to be so in reality. It could not, however, be placed in respect of this character among the preceding species that are its nearer allies in other respects, for they have no indication whatever of such structure in the frons. Among them, however, it would fall beside *H. darlingensis* in the tabulation, from which it differs by, *inter alia multa*, the finer and closer puncturation of its pronotum. In this species the pronotum is punctured very much more finely than the elytra.

New South Wales: Galston (Mr. Lea).

H. Callabonnæ, sp. nov. Minus elongatus, postice parum dilatatus; modice nitidus; ferrugineus, antennarum flabello pallido; supra pilis perbrevibus adpressis sparsim vestitus; clypeo crebre ruguloso antice rotundato; labro summo clypei planum haud attingenti;

fronte fere ut clypeus sculpturata; fronte clypeoque ut plana valde disparia visis, illa antice perpendiculari; antennis 9-articulatis; prothorace quam longiori ut 9 ad 5 latiori, antice fortiter angustato, supra minus fortiter sat crebre punctulato (puncturis circiter 20 in segmenti longitudine), lateribus pone medium sat dilatato-rotundatis, angulis anticis acutis sat productis posticis (superne visis) obtusis (subrotundatis), basi vix sinuata, margine basali subtili sat æquali; elytris subfortiter sat crebre punctulatis (trans elytron puncturis circiter 25); pygidio puncturis setiferis sparsius impresso; coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis parum dilatatis, inter series confuse nec crebre punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} sat breviori, 3^{o} sat æquali: unguiculis bifidis. Long., $4\frac{1}{5}$ l.; lat., 2 1-10 l.

Easily identified among its near allies by the perpendicularly declivous front margin of its frons. From *H. Leai*, Blackb., which approaches it in this respect, it differs by, *inter alia multa*, the evenly-rounded front margin of its clypeus.

Central Australia; Lake Callabonna (Mr. Zietz).

H. imitator, sp. nov. Minus elongatus, postice sat dilatatus; modice nitidus; ferrugineus, capite prothoraceque obscurioribus; his capillis elongatis (elytris pilis brevibus suberectis) sat dense vestitis; clypeo sat crebre ruguloso, antice rotundato; labro summo clypei planum haud attingenti; fronte fere ut clypeus sculpturata; fronte clypeoque ut plana minus disparia visis; antennis 9-articulatis; prothorace quam longiori ut 5 ad 3 latiori, antice parum angustato, supra crebre sat fortiter punctulato (puncturis circiter 18 in segmenti longitudine), lateribus sat arcuatis, angulis anticis sat obtusis minus productis posticis (superne visis) obtusis; basi modice bisinuata, margine basali minus subtili sat æquali; elytris crebre sat fortiter sat rugulose punctulatis (trans elytron puncturis circiter 20), substriatis; pygidio crebre minus fortiter punctulato; coxis posticis quam metasternum parum brevioribus, quam segmentum ventrale 2^{um} multo longioribus; femoribus posticis parum dilatatis inter series sparsim punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} nonnihil breviori, quam 3^{us} paullo longiori; unguiculis bifidis. Long., 2 l.; lat., 1 l.

This very small species illustrates remarkably the difficulty of grouping the *Heteronyces* in natural aggregates. On

a casual inspection one would have no hesitation in placing it near *H. jubatus*, Blackb., and its allies (which fall into Group VIII., having the front outline of the head trilobed and the claws appendiculate), but it has the head and claws of Group III.

Western Australia; Mount Barker (Mr. Lea).

H. femoralis, sp. nov. Modice elongatus, postice parum dilatatus; sat nitidus; ferrugineus, antennarum flabello dilutiori; supra pilis brevissimis adpressis sparsim vestitus; clypeo brevi sat crebre ruguloso, antice late sinuato-emarginato; labro summo clypei planum haud attingenti; fronte fere ut clypeus rugulosa; fronte clypeoque ut plana valde disparia visis (illa antice subito perpendiculari); antennis 9-articulatis; prothorace quam longiori ut 8 ad 5 latiori, antice sat fortiter angustato, supra subfortiter minus crebre nec grosse punctulato (puncturis circiter 15 in segmenti longitudine), lateribus pone medium sat dilatato-rotundatis, angulis anticis subacutis minus productis posticis (superne visis) obtusis sat bene determinatis, basi nonnihil bisinuata, margine basali sat æquali; elytris crebre minus fortiter punctulatis (trans elytron puncturis circiter 22), vix perspicue substriatis; pygidio sat crebre minus fortiter punctulato; coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2^{um} paullo longioribus; femoribus posticis haud dilatatis, inter series sparsius sat fortiter punctulatis, postice ante apicem dente acuto sat magno armatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali 2^{o} sat æquali, quam 3^{us} manifeste longiori; unguiculis bifidis. Long., $3\frac{4}{5}$ l.; lat. $1\frac{4}{5}$ l.

The hind femora bear a strong acute tooth of considerable size placed at about $\frac{4}{5}$ of their length from the base. I know no other *Heteronyx* presenting such a character.

Western Australia; Coolgardie.

H. granum, Burm. The small South Australian *Heteronyx* which I believe to be this species is one of the most difficult of the genus to place satisfactorily in association with other species, on account of the very peculiar structure of its labrum. The summit of that organ rises quite fully to the level of the clypeus, and is visible when the head is viewed obliquely from behind; but the sides (as viewed from above) are not parallel, but converge hindward, so that the labrum from that point of view narrows hindward and its front angles are prominent. Hence from the point of view from which most *Heteronyces* with a visible labrum present a trilobed outline in this species, there is seen to be a tooth-like process projecting between each of the lateral lobes and the middle lobe. Consequently this species does not fit satisfactorily into either of the primary sections into which I have divided the genus, having the labrum well in view when the head is viewed obliquely from behind; nevertheless the term "trilobed" is not applicable to the outline. On the whole the insect appears to me least out of place if regarded as an aberrant member of the section in which the labrum is not ordinarily visible from above, and if that view of it be accepted there can be no hesitation about referring it to Group III.; otherwise it would have to be placed in Group VII.

H. luteolus, sp. nov. Minus elongatus, postice leviter dilatatus; modice nitidus; luteus, antennarum flabello testaceo; supra pilis brevibus adpressis sparsim vestitus, clypeo crebre ruguloso, antice haud marginato, late nec fortiter emarginato; labro clypei planum fere attingenti, antice (capite a tergo oblique viso) leviter concavo; fronte grosse rugulose punctulata; clypeo fronteque ut plana valde disparia visis; antennis 9-articulatis; prothorace quam longiori ut 9 ad 5 latiori, antice leviter angustato, supra fortiter vix crebre punctulato (puncturis circiter 15 in segmenti longitudine), lateribus (superne visis) sat fortiter rotundatis, angulis anticis vix acutis parum productis posticis (superne visis) rotundatis, basi leviter bisinuata, margine basali subtili sat æquali; elytris minus fortiter minus crebre punctulatis (trans elytron puncturis circiter 20); pygidio sparsim sat grosse punctulato; coxis posticis quam metasternum multo brevioribus quam segmentum ventrale 2^{um} paullo longioribus; femoribus posticis inter series sparsim minus fortiter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} paullo breviori quam 3^{us} paullo longiori; unguiculis bifidis. Long., 3 l.; lat., 1½ l.

This little species is easy to identify by the characters cited in the tabulation. The comparatively coarse puncturation of its head and pronotum is very distinctive: the punctures of the latter, though not very numerous when counted, are somewhat crowded together by reason of their being individually large.

North-West Australia (exact locality not known).

H. asperifrons, sp. nov. Modice elongatus, postice vix dilatatus; minus nitidus; brunneo-testaceus, pedibus corporeque subtus magis rufis; supra pilis minus brevibus adpressis sat sparsim vestitus; clypeo crebre sat grosse ruguloso-punctulato, antice profunde exciso; labro

summo clypei planum haud attingenti, in media parte a capite haud exstanti; fronte confertim subtilius rugulosa; fronte clypeoque fere planum continuum efficientibus; antennis 9-articulatis; prothorace quam longiori ut 12 ad 7 latiori; antice sat angustato, supra sat crebre minus fortiter punctulato (puncturis circiter 18 in segmenti longitudine), lateribus pone medium sat dilatato-rotundatis, angulis anticis sat acutis sat productis posticis (superne visis) rotundatis, basi haud sinuata, margine basali sat subtili sat æquali; elytris crebre subfortiter subrugulose punctulatis (trans elytron puncturis circiter 25); pygidio subtilius sat crebre punctulato; coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis subcrebre fortius punctulatis, seriebus parum perspicuis, tibiis anticis extus tridentatis; tarsorum posticorum articulo basali 2^{o} sat æquali, quam 3^{us} sat longiori; unguiculis bifidis. Long., 4 l.; lat., $1\frac{4}{5}$ l.

The labrum of this species is very peculiar, being extremely deeply emarginate and projecting from the perpendicular front face of the clypeus considerably at its ends, while its middle part is in contact with the front face of the clypeus and distinguishable only by a suture. The ciliæ fringing the prothorax and elytra are longer and closer than in most species of *Heteronyx*.

Western Australia; Swan River (Mr. Lea).

H. queenslandicus, sp. nov. Minus elongatus, postice vix dilatatus; sat nitidus; obscure ferrugineus; supra pilis brevibus suberectis sat sparsim vestitus; clypeo (hoc antice profunde emarginato) fronteque æqualiter sat grosse rugulosis, ut plana sat disparia visis; labro clypei planum haud attingenti, in media parte a capite exstanti; antennis 9-articulatis; prothorace quam longiori ut 12 ad 7 latiori, antice fortiter angustato, supra sat fortiter minus crebre punctulato (puncturis circiter 16 in segmenti longitudine), lateribus (superne visis) pone medium sat fortiter rotundato-dilatatis, angulis anticis sat acutis parum productis posticis (superne visis) rotundato-obtusis, basi haud sinuata, margine basali subtili æquali; elytris fortiter sat sparsim punctulatis (trans elytron puncturis circiter 16); pygidio longitudinaliter fortiter carinato, sat crebre sat fortiter punctulato; coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2^{um} haud longioribus; femoribus posticis inter series sparsim subfortiter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} (maris vix, feminæ manifeste) breviori,

quam 3^{us}, paullo longiori; unguiculis bifidis. Long., $3\frac{1}{5}$ l.; lat., $1\frac{3}{5}$ l.

There are four specimens of this species before me among which I do not find any sexual differences, except the basal joint of the hind tarsi a little shorter in one example (probably a female) than in the others. This insect is readily distinguishable among its near allies by the strong and comparatively sparse puncturation of the whole of its dorsal surface.

Queensland; Cunnamulla (Mr. Lea).

Group IV.

This group consists of a larger number of species than any of the preceding groups. A small number of its members can be satisfactorily separated from the rest into a distinct aggregate of species evidently allied among themselves, and presenting characters that are not found in combination elsewhere in the group; thus—

A. Clypeus evenly rounded in front. Joint 3 of antennæ at least as long as joint 2 and considerably longer than joint 4. Basal joint of hind tarsi not shorter than joint 3. Hind coxæ not or scarcely shorter than metasternum	Subgroup I.
AA. Not presenting the above characters in combination	Subgroup II.

Subgroup I.

(Of Group IV.)

The species which I refer to this subgroup form perhaps in *Heteronyx* the subgroup that best merits the name "natural" as an aggregate. They are all of large (or at least moderate) size, and also resemble each other in having their dorsal surface very closely punctulate and their clypeal outline regularly rounded. They are somewhat closely allied *inter se*, and in order to form them into small groups for tabulation it has seemed necessary to rely upon apparently slight characters, but slight though they are, those characters seem to be constant. The form of the labrum presents a valuable character, the upper and lower planes of that organ being, in the four species that I have placed at the beginning of the subgroup, particularly distinct from each other, and meeting (their planes more or less at right angles) in a suture-like stria or fine line; while in the three other species the upper and lower planes of the labrum are not sharply limited, but meet in a more or less rounded manner. The defined line of meeting between the upper and lower planes of the labrum in the former species is, of course, quite distinct from the suture in which the upper plane of the labrum meets the more or less perpendicular front face of the clypeus.

In all the species of this subgroup the hind femora are confusedly punctulate between the two series of punctures.

The vestiture of the body beneath consists of the somewhat thinly-scattered pilosity that is found on the majority of *Heteronyces*, and it would appear needless repetition when it is of ordinary character to record its presence in the separate descriptions of species.

The basal piece of the claws of the hind tarsi in all the members of this subgroup shows a decided tendency at the inner apex to spiniform prolongation which in two species (*holosericeus*, Macl., and *Coatesi*, Blackb.) is sufficiently pronounced to suggest a possible doubt whether the claws ought not to be considered bifid.

It is not improbable that *H. pilosellus*, Blanch., appertains to this group, but in the absence of information regarding the claw structure of that insect its place can only be conjectured. If its claws are appendiculate it is quite possibly identical with one of those described in the following pages, but the description is too vague, in any case, for confident identification.

Tabulation of the distinctive characters of *Heteronyces* of Group IV. (Subgroup I.) :—

A. Upper plane of labrum separated from lower plane by a defined ridge or sulcus.	
B. Form very short and wide; width of elytra notably more than $\frac{2}{3}$ of their length.	
C. Elytra punctured very conspicuously less closely than pronotum	ponderosus, *Blackb.*
CC. Elytra punctured not less closely than pronotum	spissus, *Blackb.*
BB. Form normal; width of elytra not more than $\frac{2}{3}$ of their length.	
C. Apex of elytra normal	piceus, *Blanch.*
CC. Apex of elytra bearing a line of conspicuous granules which emit strong bristles	horridus, *Blackb.*
AA. Upper and lower planes of labrum meet roundly.	
B. Apex of elytra with a row of granules bearing stiff bristles	sexualis, *Blackb.*
BB. Apex of elytra normal	
C. Puncturation of elytra confluent ...	holosericeus, *Macl.*
CC. Puncturation of elytra notably less close	Coatesi, *Blackb.*

H. ponderosus, sp. nov. Robustus, sat late subovatus; sat nitidus; ferrugineus; supra pilis adpressis perbrevibus sat sparsim vestitus; clypeo fronteque crebre nec grosse

rugulosis, planum fere continuum efficientibus, illo antice rotundato: labro summo clypei planum haud attingenti, illius plano superiori ab inferiori per striam vel costam subtilem distincto; antennis 9-articulatis, articulo 3^{o} quam 2^{us} manifeste (quam 4^{us} multo) longiori; prothorace quam longiori ut 7 ad 4 latiori, antice modice angustato, supra crebre subtilius punctulato (puncturis circiter 30 in segmenti longitudine), lateribus sat rotundatis, angulis anticis minus acutis minus productis posticis (superne visis) obtusis, basi leviter bisinuata, margine basali ad latera paullo magis elevato; elytris quam latioribus ut 11 ad $8\frac{1}{2}$ longioribus, concinne subtilius sat crebre punctulatis (trans elytron puncturis circiter 35), pygidio subtilius sat crebre punctulato; coxis posticis quam metasternum haud brevioribus quam segmentum ventrale 2^{um} valde longioribus; tibiarum posticarum parte apicali ad apicem quam ad basin sat latiori; tibiis anticis fortiter tridentatis; tarsorum posticorum articulo basali 2^{o} sat æquali, quam 3^{us} sat longiori; unguiculis appendiculatis. Long., $6\frac{2}{5}$ l.; lat., $3\frac{3}{5}$ l.

This species differs from all its near allies by the punctuation of its elytra notably less close than of its pronotum, and consisting of isolated, even punctures entirely non-squamose and non-rugulose. It also differs from them all except *H. spissus* by its short, broad form and the more strongly-rounded sides of its prothorax.

New South Wales; Goulburn (Mr. Froggatt: his nums. 35).

H. spissus, sp. nov. Robustus, sat late ovatus; sat nitidus; ferrugineus; supra pilis adpressis perbrevibus sat sparsim vestitus; clypeo fronteque creberrime minus fortiter rugulosis, planum fere continuum efficientibus, illo antice rotundato; labro summo clypei planum haud attingenti, illius plano superiori ab inferiori per striam vel costam subtilem distincto; antennis 9-articulatis, articulo 3^{o} quam 2^{us} et quam 4^{us} sat longiori; prothorace quam longiori ut 16 ad 9 latiori, antice sat angustato, supra subtilius sat confertim punctulato (puncturis circiter 35 in segmenti longitudine), lateribus sat rotundatis, angulis anticis sat acutis sat productis posticis (superne visis) obtusis, basi leviter bisinuata, margine basali ad latera vix magis elevato; elytris quam latioribus ut $12\frac{1}{2}$ ad 10 longioribus, subtilius sat confertim punctulatis (trans elytron puncturis circiter 50); pygidio sat crebre subfortiter punctulato; coxis posticis quam metasternum haud brevioribus quam segmentum ventrale 2^{um} valde longioribus; tibiarum posticarum parte apicali ad apicem

quam ad basin sat latiori; tibiis anticis extus fortiter tridentatis; tarsorum posticorum articulo basali 2° sat æquali, quam 3^{us} sat longiori; unguiculis appendiculatis. Long., 7 l.; lat., 4 l.

A somewhat close ally of the preceding species *(H. ponderosus)*, but easily distinguished from it by the very much closer puncturation of its elytra as well as by various other characters that will be noticed by comparing the descriptions.

New South Wales: Queanbeyan (Messrs. Griffith and Lea).

H. piceus, Blanch. I have before me a considerable number of specimens (from various localities in New South Wales and South Australia) which present the combination of characters that in the preceding tabulation refer them to this species. I am of opinion that they include several closely allied species differing, *inter se*, in respect of puncturation, of the form of the hind tibiæ, and in several other respects. There is little doubt that *H. piceus*, Blanch., is among them, but the description of that insect might well have been founded on any one of them. Under these circumstances I am not prepared to risk error—the type of *H. piceus* not being available for inspection—by assigning the name to one rather than another, and I adopt this course the more willingly because they are really very closely allied species which it would be extremely difficult to differentiate intelligibly in words. When I redescribed *H. piceus* (P.L.S., N.S.W., 1888, p. 1341) I had before me two of these forms—which I then regarded as identical—and although my description was drawn up from inspection of one specimen in particular, it does not happen (fortunately I think) to mention any of the slight details of structure which an examination of numerous specimens has since led me to think differentiate the form described from the other form then regarded by me as identical. In a subsequent memoir (P.L.S., N.S.W., 1889, p. 1228) I mentioned another specimen which I thought could hardly be separated from *H. piceus*, but which I am now disposed to regard as distinct but for the reasons stated above I do not propose to describe it under a new name, it being quite possibly the true *piceus*. It is worthy of note that in the Macleay Museum *H. piceus*, Blanch., is represented by two species, one of which is certainly not *piceus* while the other is identical with one of the forms before me when I redescribed the species.

H. sexualis, sp. nov. Sat robustus, modice elongatus; minus nitidus; ferrugineus; supra pilis adpressis perbrevibus sat sparsim vestitus; clypeo confertim ruguloso, antice rotundato; labro (hoc transversim rotundato) summo clypei planum haud attingenti; fronte confertim subrugulose punctulato; clypeo fronteque planum fere continuum efficientibus; antennis 9-articulatis, articulo 3º quam 2us parum (quam 4us paullo magis) longiori; prothorace quam longiori ut 16 ad 9 latiori, antice sat angustato, supra subtilius confertim punctulato (puncturis circiter 38 in segmenti longitudine), lateribus leviter arcuatis, angulis anticis acutis sat productis posticis (superne visis) obtusis, basi manifeste bisinuata, margine basali sat æquali; elytris subtiliter confertim nonnihil squamose punctulatis (trans elytron puncturis circiter 50), ad apicem granulis setiferis fimbriatis; pygidio minus crebre minus fortiter punctulato; coxis posticis quam metasternum haud brevioribus quam segmentum ventrale 2um valde longioribus; tibiis anticis extus fortiter tridentatis; tarsorum posticorum articulo basali 2º sat æquali, quam 3us sat longiori; unguiculis appendiculatis. Long., $6\frac{1}{5}$-8 l.; lat., $3\frac{1}{5}$-4 l.

Maris segmento ventrali 4° postice aream opacam ferenti, hac confertim subtiliter strigata.

Easily distinguished from all the preceding species of the subgroup by the labrum having its upper and lower planes meeting roundly instead of in a defined line or stria. From all the following species it is easily distinguished by the fringe of setiferous granules at the apex of its elytra. It seems to be widely distributed in all the interior regions of Australia. I have seen specimens from the eastern parts of Western Australia, the northern (but not tropical) parts of South Australia, and from Western Queensland. A form from tropical Queensland closely resembling it presents some differences of sculpture—especially on the head—and is likely to be specifically distinct; but as I have only a single specimen it is better to regard it provisionally as a possibly abnormal example of this insect. It should be noted that the sculpture of the dorsal surface is a trifle closer in the female of this species than in the male.

Central Australia; very widely distributed.

H. Coatesi, sp. nov. Modice elongatus, postice parum dilatatus; sat nitidus; testaceo-brunneus; supra pilis brevibus sparsius vestitus; clypeo crebre ruguloso, antice rotundato; labro (hoc transversim rotundato) summo clypei planum haud attingenti; fronte crebre (parum vel modice rugulose) punctulata; clypeo fronteque planum fere continuum efficientibus; antennis 9-articulatis, articulo 3º quam 2us vix (quam 4us sat) longiori; prothorace quam longiori ut 11 ad 7 latiori, antice sat angustato, supra crebre subtilius punctulato (puncturis circiter 35 in segmenti longitudine), lateribus leviter arcuatis, angulis anticis sat acutis sat productis posticis (superne visis) obtusis, basi leviter bisinuata, margine basali sat æquali; elytris crebre subtilius vix (femina quam mas paullo magis) squamose punctulatis (trans elytron puncturis circiter 35); pygidio maris sparsius subtilius (feminæ magis crebre magis fortiter) punctulato; coxis posticis quam metasternum haud brevioribus, quam segmentum ventrali 2^{um} valde longioribus; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali 2^{o} sat æquali, quam 3^{us} sat longiori; unguiculis appendiculatis (formam bifidam nonnihil simulantibus). Long., $4\frac{1}{2}$-6 l.; lat., $2\frac{3}{5}$-3 l.

This species resembles *H. holosericeus*, Macl., in general appearance and in most of its structural characters, but is easily distinguished from it by the much less close punctuation of its elytra, that of *holosericeus* being quite as close as of *sexualis*, Blackb. The punctures of the dorsal surface of the sex that I believe to be the male are slightly larger and stronger than of the other sex, and consequently are a trifle more crowded together.

Queensland; Brisbane (Coates); sent by Mr. Lea.

Subgroup II.

(Of Group IV.)

This subgroup contains a large number of species, 30 hitherto described being confidently, and 3 doubtfully, referable to it (these last not included in the tabulation), and 35 more being described in the following pages, making a total of 68. I have not been able to convict any of the names employed for the above species of being mere synonyms. There can be no hesitation in attributing to this subgroup any of the species which I have tabulated as composing it except two or three of the last six or seven, which are somewhat intermediate between Groups IV. and VIII. *H. simius*, Blackb., is a species which also seems to be on the border line between Groups IV. and VIII., its labrum being visible, and concave in outline, when the head is viewed obliquely from behind, but as its labrum rises above the level of the clypeus I have regarded it as an aberrant member of Group VIII.

In the following pages will be found—*(a)* a tabular statement of the distinctive characters of the species known to me of this subgroup; *(b)* notes on the species not known to me, but more or less probably belonging to the subgroup; *(c)* notes on some of the already described species; *(d)* descriptions of new species.

Tabulation of the distinctive characters of *Heteronyces* of Group IV. (Subgroup II.):—

A. Labrum not visible (the head being viewed obliquely from behind).
B. Clypeus rounded in front or lightly sinuately emarginate.
C. Elytra not set with long erect hairs, at most having short suberect pubescence.
(1) D. Front of frons not perpendicularly declivous.
E. Pronotum punctured much more finely and closely (confluently) than any other dorsal part. Size large ... ... grandis, *Blackb.*
EE. Not presenting the characters of E.
F. Hind coxæ not longer than 2nd ventral segment, leaving 1st ventral segment widely exposed.
G. Elytra studded with distinct small granules.
H. Prothorax (viewed obliquely from side) with defined obtuse hind angles and dilatation.
I. Pronotum not very closely punctulate ... ... tasmanicus, *Blackb.*
II. Pronotum confluently punctured ... ... quæsitus, *Blackb.*
HH. Prothorax (viewed obliquely from side) quite rounded off at hind angles and not dilated ... ... Randalli, *Blackb.*
GG. Elytra not granulate ... ... satelles, *Blackb.*
FF. Hind coxæ not as F.
G. Pronotum smoothly punctured, non-rugulose.
H. Elytra not perpendicularly declivous slightly in front of apex.
I. Prothorax less than twice as wide as long.
(2) J. Punctures of pronotum less numerous, not more than 18 punctures in its length.
K. Basal lobe of prothorax not particularly large.
L. Apical piece of hind claws about as long as basal piece.
M. Sides of prothorax strongly rounded ... ... unicus, *Blackb.*
MM. Sides of prothorax very lightly arched.

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(1) In *H. æqualis* (which is placed under "DD.") the perpendicular declivity of the frons is only slightly developed.

(2) *H. socius* is on the border line between this aggregate and JJ.

N. Basal joint of hind tarsi longer than 3rd joint ... Froggatti, *Macl.*
NN. Basal joint of hind tarsi shorter than 3rd joint Perkinsi, *Blackb.*
LL. Apical piece of hind claws considerably shorter than basal piece.
M. Base of pronotum bisinuate; size moderate (4. l. or more).
N. Prothorax wide in front ... ... viator, *Blackb.*
NN. Prothorax much narrower in front.
O. Prothorax nearly twice as wide as long ... ... mundus, *Blackb.*
OO. Prothorax notably less than twice as wide as long.
P. Sides of prothorax almost evenly arched ... Victoris, *Blackb.*
PP. Sides of prothorax much dilatate-rotundate behind middle ... ... socius, *Blackb.*
MM. Base of pronotum not sinuate; size small (3 l.) metropolitanus, *Blackb.*
KK. Prothorax behind a line joining the hind angles quite half as long as in front of it ... ... lobatus, *Blackb.*
JJ. Punctures of pronotum more numerous (20 or more punctures in its length).
K. Puncturation of pronotum excessively fine and close (more than 30 punctures in length).
L. Puncturation of elytra excessively fine and close (as in *H. elongatus*) ... ... ciliatus (Melolontha), *Boisd.*
LL. Puncturation of elytra notably less fine and close ... tempestivus, *Er.*
KK. Puncturation of pronotum not as K.
L. Elytra closely punctulate, 10 punctures from suture not nearly reaching middle.
M. Base of prothorax bisinuate.
N. Basal edging of pronotum distinctly more raised at its ends.
O. Sides of prothorax (viewed from above) lightly evenly arched.

P. Form normal, prothorax only moderately narrow in front.

Q. Hind femora between the series not strongly and closely punctulate.

R. Elytral punctures subconfluent ... ... ingratus, *Blackb.*

RR. Elytral punctures well isolated.

S. Punctures of pronotum not larger than of elytra.

T. Lateral edging of pronotum considerably more raised close to front angles than in middle.

U. Elytra non-striate ... ... hothamensis, *Blackb.*

UU. Elytra distinctly substriate ... Alpicola, *Blackb.*

TT. Lateral edging of pronotum not distinctly more raised in front than in middle. ... ... debilicollis, *Blackb.*

SS. Punctures of pronotum distinctly larger than of elytra ... ... tæniensis, *Blackb.*

QQ. Hind femora between the series quite strongly and closely punctulate ... ... punctipes, *Blackb.*

PP. Form notably long and narrow, prothorax much narrowed in front ... ... elongatulus, *Blackb.*

OO. Sides of prothorax (viewed from above) distinctly rotundate-dilatate behind middle ... eremita, *Blackb.*

NN. Basal edging of pronotum not more raised at ends ... ... nigrescens, *Blackb.*

MM. Base of prothorax without any sinuation.

N. Labrum (viewed from above) very deeply concave testaceus, *Blackb.*

NN. Labrum (viewed from above) almost truncate simplicicollis, *Blackb.*

LL. Elytra less closely punctulate, 10 punctures from suture reaching middle.

M. Lower plane of labrum punctureless and very nitid affinis, *Blackb.*

MM. Lower plane of labrum closely rugulose ... ... nubilus, *Blackb.*

II. Prothorax fully twice as wide as long ... ... præcox, *Er.* (?)

HH. Elytra perpendicularly declivous slightly before apex ... ... elytrurus, *Blackb.*

GG. Sculpture of pronotum rugulose or granular, especially near hind angles.

H. Hind coxæ much (half again or thereabouts) longer than 2nd ventral segment.

I. Lateral outline of prothorax (viewed from side) sinuous.

J. Puncturation of dorsal surface not particularly fine (less fine than in *jubatus*).

K. Colour black ... ... gracilipes, *Blackb.*

KK. Colour brown or castaneous brown ... ... copiosus, *Blackb.*

JJ. Puncturation of dorsal surface very fine (finer than in *jubatus*). terrenus, *Blackb.*

II. Lateral outline of prothorax (viewed from side) straight ... incognitus, *Blackb.*

HH. Hind coxæ only very slightly longer than 2nd ventral segment ... ... orbus, *Blackb.*

(3) DD. Front of frons perpendicularly declivous.

E. Surface of frons not sulcate.

F. Basal two joints of hind tarsi about equal in length ... ... æqualis, *Blackb.*

FF. Basal joint of hind tarsi notably shorter than 2nd joint.

G. Basal edging of pronotum well defined and strong ... ... severus, *Blackb.*

GG. Basal edging of pronotum extremely fine ... ... interioris, *Blackb.*

EE. Frons with a deep transverse sulcus ... ... sulcifrons, *Blackb.*

CC. Elytra set with long, erect hairs.

D. Hind femora dilated and between the series non-punctulate.

E. Ventral segments normally punctulate ... ... striatus, *Blackb.*

EE. Ventral segments all but non-punctulate (the very conspicuous setiferous series disregarded).

F. Labrum (viewed from in front) very lightly arched ... ... salebrosus, *Blackb.*

FF. Labrum (viewed from in front) very strongly arched ... ... seriatus, *Blackb.*

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(3) In *H. æqualis*, Blackb., this character is not strongly developed

DD. Hind femora conspicuously punctulate between the series and usually narrower.
E. Hind femora opaque, with close, fine asperity ... ... insignis, *Blackb.*
EE. Hind femora nitid, with conspicuous puncturation.
F. Pronotum closely rugulose, its puncturation lost in the rugulosity.
G. A distinct sharp projection at apex of basal piece of hind claws pubescens, *Er.*
GG. Basal piece of hind claws not produced at apex.
H. Elytra quite coarsely rugulose ... ... deceptor, *Blackb.*
HH. Elytra finely punctulate, scarcely rugulose ... ... Carteri, *Blackb.*
FF. Pronotum scarcely rugulose, its punctures (though close) isolated and conspicuous ... ... comans, *Blackb.*
BB. Middle of clypeus deeply excised.
C. Elytra not clothed with long, erect hairs.
D. Punctures of elytra large and sparse (12 from suture reach at least to middle).
E. Hind angles of prothorax (viewed from above) sharply rectangular ... occidentalis, *Blackb.*
EE. Hind angles of prothorax (viewed from above) obtuse ... ... exectus, *Blackb.*
DD. Punctures of elytra very much smaller and closer ... ... simulator, *Blackb.*
CC. Elytra clothed with long, erect hairs ... ... pygidialis, *Blackb.*
(4) AA. Labrum visible as part of outline (head being viewed obliquely from behind).
B. Basal joint of hind tarsi nearly twice length of 2nd joint ... ... setifer, *Blackb.*
BB. Basal joint of hind tarsi much shorter.
C. Clypeus deeply excised (not less so than in *obesus*).

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(4) This character is not strongly marked in *H. intermedius*, Blackb., and *H. thoracicus*, Blackb. They have the clypeus deeply excised.

D. Punctures of pronotum excessively fine and close (about 35 in length) ... excisus, *Blackb.*
DD. Punctures of pronotum notably less close (30 or less in length) ... ...
E. Width of prothorax distinctly less than twice length.
F. Labrum all but reaches level of clypeus.
G. Subsutural interstice flat ... ... obesus, *Burm.*
GG. Subsutural interstice strongly convex ... ... monticola, *Blackb.*
FF. Labrum considerably below level of clypeus ... ... intermedius, *Blackb.*
EE. Width of prothorax quite fully twice length ... ... thoracicus, *Blackb.*
CC. Clypeus truncate or very lightly emarginate.
D. Hind coxæ nearly covering 1st ventral segment, much longer than 2nd ventral segment.
E. Punctures of elytra large and not close (12 from suture reach middle) additus, *Blackb.*
EE. Punctures of elytra much smaller and closer (12 from suture not nearly reaching middle).
F. Base of prothorax bisinuate ... ... quadraticollis, *Blackb.*
FF. Base of prothorax not sinuate ... ... sydneyanus, *Blackb.*
DD. Hind coxæ not or scarcely longer than 2nd ventral segment (basal ventral segment widely exposed).
E. Hind corners of prothorax quite rounded off.
F. Pronotum brightly nitid, about 12 punctures in its length ... ... blandus, *Blackb.*
FF. Pronotum dull, about 20 punctures in its length ... ... prosper, *Blackb.*
EE. Prothorax with well defined hind angles.
F. Elytral punctures sparse (10 from suture reach middle) ... ... proditor, *Blackb.*
FF. Elytral punctures not sparse (10 from suture not nearly reach middle) ... ... relictus, *Blackb.*

H. planatus, Burm., is probably a member of this subgroup or of Group III., according as its claws are bifid or appendiculate. I cannot identify it with any insect known to me.

H. (Silopa) præcox, Er. Blanchard, in his Cat. Col. Ent., p. 112, separated this species from *Heteronyx* altogether, under the name *Hostilina*, on account of the structure of its labrum, and also stated that its antennæ consist of only 8 joints. M. Lacordaire's remark on the insufficiency of the distinctive characters of *Hostilina* seems to be well founded; and it would appear, moreover, that if *Silopa præcox*, Er., is generically distinct from *Heteronyx*, Erickson's generic name ought to be retained for it. I have not seen any insect that I can identify with Blanchard's *Hostilina*, and I may add that *S. præcox*, Er., was not among the type specimens of *Heteronyx* from Erickson's collection sent from Berlin for my inspection (*vide* Tr. R.S., S.A., 1901, p. 15) some years ago, which perhaps points to the probability that the type is not in existence. I am, however, of opinion that Blanchard was mistaken in his identification of *præcox*, as there is a common Tasmanian *Heteronyx* (found also in South Australia and New South Wales, and no doubt in Victoria) which agrees so well with Erickson's description, though it is certainly not Blanchard's *Hostilina*, that I call it "*H. præcox*, Er. ?" I think the "?" scarcely necessary. It is easily recognizable in Group IV. by its prothorax fully twice as wide as long in combination with labrum (viewed from above) very strongly emarginate and very short basal joint of hind tarsi.

H. australis, Guér, from the description and figure together seems to be *certainly* a member of this subgroup, the entire absence of description of the nature of the punctuation rendering it, however, quite incapable of further identification without an examination of the type. M. Blanchard is certainly wrong in identifying it with *H. hepaticus*, Er. The description of the two are quite irreconcilable, and the great difference in size and habitat renders identity most improbable.

H. laticeps, Burm., is possibly a member of this subgroup, and has already been discussed under Group III.

H. Froggatti, Macl. This species is not represented in my collection. The characters attributed to it in my tabulation have been ascertained by examination of the type in the Macleay Museum.

H. (Melolontha) ciliatus, Boisd. My identification of this species is founded entirely on the existence in the Macleay Museum at Sydney of a specimen ticketed in the handwriting of Mr. W. S. Macleay "*Sericesthis ciliata*, McLeay, N.S.W." It is a fair assumption that this is the type of the insect which Boisduval described as *Melolontha ciliata*, McLeay, or at any rate the specimen which Macleay—if he sent the type to Boisduval—retained as in his opinion identical. Boisduval gives merely "New Holland" as the habitat and does not mention the size or any character indicative of genus. It must be admitted that the Sydney specimen does not agree well with Boisduval's description such as it is, for Boisduval calls the head and prothorax "rugose-punctate" and the elytra "punctate striate," while in the Sydney specimen there is no "rugulosity" except on the head, and the elytra have only feeble indications of the pseudo-striation that occurs much more conspicuously on many *Heteronyces*. Boisduval's phrase "interstitiis (elytrorum) punctatissimis" fits the Sydney specimen very well and expresses a character that is not extremely common in the Australian *Sericoides*. Blanchard (as previously noted by me, Tr. R.S., S.A., 1906, p. 295) catalogues *Melolontha ciliata*, Boisd., as *Haplonycha* (section with 8-jointed antennæ) without indicating his reason for doing so. The probability, however, of the Sydney specimen being at least a co-type justifies me, I think, in claiming for it the name *ciliata*, Boisd., until some more definite contrary evidence shall be forthcoming. I may add that I have in my own collection a badly-damaged specimen taken in South Australia which seems to be identical with that in the Macleay Museum.

H. tempestivus, Er. It is well to notify that I have not seen the type of this species, and that my identification of it is founded on the description. I do not think, however, that there is much doubt about the Tasmanian species to which I apply the name being correctly identified.

H. Alpicola, Blackb. It will be well to mention here that this species (the only previously described one of the group of closely associated species discussed under the heading of *H. tæniensis)* differs from all the others of that group by the very evidently larger punctures of its elytra, of which there are only about 22 in the width of an elytron. The punctures of its pronotum are very much smaller.

H. testaceus, Blackb., resembles the species that I have called "*H. præcox*, Er. ?" in the form of its labrum and hind tarsi and in general appearance, but differs by its less transverse prothorax as well as by the evidently less fine punctuation of its dorsal surface, especially its pronotum.

H. gracilipes, Blackb. This species and *H. copiosus*, Blackb., are closely allied, but are certainly distinct. I do not like the use of colour distinctions for tabulation, but in this case it is probably reliable. I have seen a good many specimens of both species and do not find the colour variable. Other differences, unfortunately, do not lend themselves to tabulation. *H. gracilipes* is evidently of narrower form than *copiosus* and of more convex build, and its elytra have little or no trace of granulation, their punctures, moreover, very manifestly larger and less closely placed. The specimen from Kangaroo Island mentioned (in my notes on the original description) as being of a somewhat ferruginous tone of colour is in bad condition and evidently immature, and I think there is no doubt that its dorsal surface not being black is altogether due to its immaturity.

H. incognitus, Blackb. This species is of narrow elongate form like *H. terrenus*, Blackb., and differs from that species, *inter alia*, by its larger size and the notably larger and less closely placed punctures of its dorsal surface. The character mentioned in the tabulation, *viz.*, the straightness of the lateral margin of its prothorax when viewed from the side no doubt results from that segment being notably less narrowed in front than is the same segment in the allied species with the lateral margin sinuate when similarly viewed.

H. severus, Blackb. The type of this species is a female. Since I described it I have received from the same locality in Central Australia a male *Heteronyx*, which I regard, not without hesitation, as specifically identical. It is larger than the type (long., 5 l.) and differs from the type by characters that certainly are not usually sexual in *Heteronyx*, especially the considerably finer punctures of its pronotum, the sides of which are distinctly less strongly arched, and the lighter colour of its dorsal surface (the males are usually the darker in colour where there is a sexual colour difference). The frons of this example is perpendicular in front as in the type, but is not carinate above the declivity. The middle of each of its basal three ventral segments bears two quite distinct (but not sharply-defined) tubercles, and I find in the type similar, though much feebler, unevenness on the corresponding segments. It is the presence in both of this last-named very peculiar character which hinders me from regarding them as two species. It is so frequent a circumstance to find peculiar characters in the insects of Central Australia that it seems to me probable that this is a species in which sex has defined itself in an unusual way.

H. æqualis, Blackb. The presence of exceptional characters on the frons is too useful a character (in distinguishing species) to be passed by, but unfortunately the species presenting that character unmistakably are so linked on by at least one intermediate form to those in which it is absent that its value for purposes of tabulation is diminished. Of the four species which I have grouped together on this character in the present group, three of them have the front of the frons not only decidedly perpendicular but strongly so (*i.e.*, the height of the perpendicular face considerable, about equal to the thickness of a palpus), but in *æqualis* the face of the frons though undoubtedly perpendicular is of very little height and not very conspicuous. If the frontal character were disregarded *æqualis* would stand in the tabulation beside *debilicollis*, Blackb., which has a perfectly normal frons and also differs from *æqualis* by, *inter alia*, its prothorax more narrowed in front and its elytra evidently more strongly punctulate. I do not think any species which I have tabulated as not presenting the frontal peculiarity of *severus*, etc., could possibly be regarded as presenting it unless possibly *terrenus*, Blackb. (in which there is a suspicion of the frontal character), but it is easily distinguishable from nearly all others of this subgroup by belonging to the small aggregate, having the pronotum conspicuously asperate or granulate.

H. setifer, Blackb. The extraordinary length of the basal joint of the hind tarsi in both sexes of this species is, so far as I know, unique in *Heteronyx*. The male is smaller than the female, and has longer tarsi (especially the intermediate pair). The basal piece of the hind claws is distinctly produced at its inner apex, but the projection is very much smaller than the apical piece. This species occurs in Western Australia as well as near Adelaide, but seems to be a rare insect. The apical part of the elytra is abruptly and somewhat widely depressed, almost as in *H. occidentalis*, Blackb.

H. insignis, Blackb. Attention should be given to a note on this species in Tr. R.S., S.A., 1908, pp. 383, 384.

H. deceptor, Blackb. In my former revision of *Heteronyx* I drew attention to the curious superficial resemblance between this species and *H. torvus*, Blackb., to which it is not at all closely allied structurally. In respect of structure its closest ally is *pubescens*, Er., from which it differs in numerous superficial characters not lending themselves to tabulation, *e.g.*, its nearly black elytra and dark piceous antennæ, its less nitid appearance, the notably finer and closer rugulosity of its pronotum. Its claws furnish, however, a definite character by which it can be at once distinguished, those of its hind tarsi having their basal piece not in the least produced at the apex, while the corresponding piece in *pubescens* terminates in a perfectly distinct small spine-like projection on the inner side.

H. pubescens, Er. I have before me numerous examples that I feel no doubt are this species, which seems to be common and widely distributed in Tasmania. It varies considerably in size (long., 4½-6 l.) and also in colouring. The elytra seem to be constantly brown (more or less *dark* brown), but the pronotum and head of some specimens are nearly black. The long erect hairs are fairly close in fresh examples but seem to be somewhat easily rubbed off, so that it is not unusual to find very few of them left. The small dark specimens are evidently males, and they also differ from the females in having less rugulose puncturation (very noticeable on the pygidium) and conspicuously longer and more slender tarsi.

H. tasmanicus, sp. nov. Minus elongatus, postice sat dilatatus; sat nitidus; obscure ferrugineus; supra pilis brevibus sparsius vestitus; clypeo crebre ruguloso, antice late rotundato; labro summo clypei planum haud attingenti; fronte fortiter crebre rugulose punctulata; clypeo fronteque ut plana manifeste disparia visis; antennis 9-articulatis, articulo 3o quam 2us multo breviori; prothorace quam longiori ut 9 ad 5 latiori, antice leviter angustato, supra sat crebre subfortiter punctulato (puncturis circiter 23 in segmenti longitudine), lateribus sat arcuatis pone medium leviter dilatato-rotundatis, angulis anticis vix acutis minus productis posticis (superne visis) obtusis, basi leviter bisinuata, margine basali ad latera vix magis elevato; elytris subtiliter granulatis sat crebre subfortiter subsquamose punctulatis (trans elytron puncturis circiter 26); pygidio subtiliter sparsius punctulato; coxis posticis quam metasternum multo brevioribus, segmento ventrali 2o longitudine sat æqualibus; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2us nonnihil (quam 3us etiam magis) longiori; unguiculis appendiculatis. Long., 5 l.; lat., 2$\frac{3}{5}$ l.

This species is easily distinguishable from almost all its near allies by its extremely short hind coxæ. In the female the puncturation is a little more decidedly squamose than in the male and a trifle closer and less defined.

Tasmania; from Mr. Simson.

H. quæsitus, sp. nov. Modice elongatus, postice sat dilatatus; sat nitidus; obscure ferrugineus; supra pilis adpressis brevibus minus sparsim vestitus; clypeo confertim ruguloso antice rotundato; labro summo clypei planum haud attingenti; fronte fortiter crebre rugulose punctulata; clypeo fronteque ut plana manifeste disparia visis; antennis 9-articulatis, articulo 3o quam 2us multo breviori; prothorace quam longiori ut 18 ad 11 latiori, antice

sat angustato, supra confertim squamose punctulato (puncturis circiter 28 in segmenti longitudine), lateribus sat arcuatis, angulis anticis parum acutis posticis (superne visis) obtusis, basi bisinuata, margine basali sat æquali; elytris sat crebre granulatis crebre squamose subtiliter punctulatis (trans elytron puncturis circiter 32); pygidio subtilius minus sparsim punctulato; coxis posticis quam metasternum multo brevioribus, segmento ventrali 2^{o} longitudine sat æqualibus; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} nonnihil (quam 3^{us} etiam magis) longiori; unguiculis appendiculatis. Long., 5 l.; l., $2\frac{1}{2}$ l.

Not much different from *H. tasmanicus* structurally, but very differently sculptured. The puncturation of the pronotum is exaggeratedly squamose, so that the punctures appear confluent (or almost so) and thickly studded with small granules (especially in the front part). The puncturation of the elytra is much finer and closer than in *tasmanicus*.

Victoria; Dividing Range.

H. Perkinsi, sp. nov., Mas. Minus elongatus, postice leviter dilatatus; sat nitidus; dilute ferrugineus; supra fere glaber (corpore subtus sparsissime piloso); clypeo crebre subrugulose punctulato, antice late rotundato et (præsertim in medio) late reflexo; labro summo clypei planum haud attingenti, fronte sat crebre sat fortiter vix rugulose punctulata; fronte clypeoque ut plana disparia visis (illa convexa); antennis 9-articulatis, articulo 3^{o} quam 2^{us} vix breviori; prothorace quam longiori duplo latiori, antice sat angustato, supra minus crebre sat fortiter punctulato, exempli typici parte mediana anguste sublævi, (puncturis circiter 16 in segmenti longitudine), lateribus minus arcuatis, angulis anticis acutis sat fortiter productis posticis (superne visis) sat rectis; basi parum sinuata, margine basali sat æquali; elytris fortiter minus crebre subseriatim punctulatis (trans elytron puncturis circiter 18), costulis obtusis circiter 3 obscure instructis; pygidio opaco, minus crebre leviter ruguloso; coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2^{um} sat longioribus; tibiis anticis extus tridentatis; tarsorum posticorum (his elongatis et nonnihil incrassatis) articulo basali quam 2^{us} multo (quam 3^{us} manifeste) breviori; unguiculis appendiculatis, parte basali quam apicalis vix longiori. Long., $4\frac{2}{5}$; lat., $2\frac{2}{5}$ (vix).

Structurally a very isolated species except that it is closely allied to *H. unicus*, Blackb., and *Froggatti*, Macl.

My unique specimen is a male, and my two examples of *unicus* are females. Specifically they are certainly distinct; *inter alia multa*, the prothorax of *Perkinsi* having well-defined hind angles, and sides only feebly arched—so that the lateral outline viewed from the side appears quite straight; while the prothorax of *unicus* has hind angles rounded off, and sides quite strongly rounded—so that the lateral outline viewed from the side appears strongly arched downward. It is probable, however, that the following differences are sexual and distinguish the sexes of all these three species—*viz.*, pygidium much less nitid, tarsi stouter and much longer, basal joint of hind tarsi notably longer, in the male than in the female. I have not a specimen of *Froggatti* before me, but have notes made when I inspected the type, which, however, do not mention the sex. The prothorax of *Froggatti* resembles that of *Perkinsi* in outline, but the dorsal surface is considerably less closely punctulate in all parts and the basal joint of the hind tarsi is not shorter than the 3rd joint, which is extremely unlikely to be the case in the female of *Perkinsi*, the male (in all instances known to me of sexual difference in the hind tarsi of *Heteronyx*) having the longer basal joint. The elongate hind claws appendiculate almost exactly in the middle of their length are common to these three species, and are unusual in *Heteronyx*.

North Queensland (Mr. Perkins).

H. mundus, sp. nov. Modice elongatus, postice sat dilatatus; sat nitidus; ferrugineus, supra pilis perbrevibus suberectis minus crebre vestitus; clypeo confertim ruguloso antice rotundato; labro summo clypei planum haud attingenti; fronte fortiter crebre rugulose punctulata; clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3º quam 2us sat breviori; prothorace quam longiori ut 15 ad 8 latiori, antice fortiter angustato, supra sat fortiter minus crebre punctulato (puncturis circiter 16 in segmenti longitudine), lateribus modice arcuatis, angulis anticis sat acutis modice productis posticis (superne visis) obtusis, basi nonnihil bisinuata, margine basali sat forti sat æquali; elytris sat fortiter minus crebre punctulatis (trans elytron puncturis circiter 22), costulis 2 obtusis vix manifestis instructis; pygidio subopaco granulis setiferis sparsius instructo; coxis posticis quam metasternum multo brevioribus quam segmentum ventrale 2um paullo longioribus; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali 2º sat æquali quam 3us sat longiori; femoribus posticis inter puncturarum series haud punctulatis; unguiculis appendiculatis. Long., $4\frac{4}{5}$ l.; lat., $2\frac{2}{5}$ l.

A species of neat, sharply-punctured general appearance with a somewhat unusually narrow and elongate head. It is closely allied with *H. viator*, Blackb., *Victoris*, Blackb., and *socius*, Blackb., differing, *inter alia*, from *viator* by its head distinctly longer and narrower and by its prothorax considerably more narrowed in front and having better-defined hind angles: from *Victoris* by its broader form, its much more transverse prothorax, and the puncturation of its elytra coarser and more sparse: and from *socius* by its evidently more transverse prothorax and the distinctly sparser puncturation of its elytra. The unique type is, I think, certainly a female. It should be noted that in this species and the other three just mentioned the hind coxæ, though much shorter than the metasternum and not very much longer than the 2nd ventral segment, yet cover the 1st ventral segment.

Western Australia.

H. socius, sp. nov. Sat elongatus, postice leviter dilatatus; sat nitidus: obscure brunneus, antennis palpis pedibusque dilutioribus: supra pilis brevibus suberectis subcrebre vestitus; clypeo confertim ruguloso antice rotundato; labro summo clypei planum haud attingenti; fronte fortiter crebre rugulose punctulata; clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3^{o} quam 2^{us} sat breviori; prothorace quam longiori ut 15 ad 9½ latiori, antice sat fortiter angustato, supra fortius subcrebre punctulato (puncturis circiter 18 in segmenti longitudine), lateribus pone medium sat dilatato-rotundatis, angulis anticis minus acutis minus productis posticis (superne visis) obtusis, basi leviter bisinuata, margine basali sat æquali; elytris sat fortiter sat crebre punctulatis (trans elytron puncturis circiter 25): pygidio granulis setiferis instructo: coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2^{um} paullo longioribus; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} vix (quam 3^{us} sat) longiori: unguiculis appendiculatis. Long., 4⅕-4¾ l.: lat., 2-2¼ l.

As noted above (under *H. mundus*), this species is closely allied with three others. Its nearest ally is *H. Victoris*, Blackb., from which it differs (disregarding colour: the dorsal surface of the unique type of *H. Victoris* is nearly black), *inter alia*, by its prothorax notably more transverse and less narrowed in front, with sides considerably rotundate-dilatate behind the middle. The prothorax of *H. Victoris* is among the least transverse and most strongly narrowed forward of any in the genus. *H. socius* is difficult to place in my tabulation of this subgroup, because the puncturation of its pronotum makes it somewhat intermediate between the aggregates with the pronotum sparsely and closely punctulate. I count 18 punctures in the length of the majority of the specimens I have seen, but in one I make 19 punctures and in another 20. Of course the number of punctures may vary slightly in two examples of a species, but I may say that in the other species which I have placed under "I." normal specimens have less than 18 punctures in the length of the prothorax, and I have not counted more than 18 in any of them. In the females of this insect the puncturation of the dorsal surface is a trifle coarser than in the males.

Western Australia: Swan River (Mr. Lea).

H. metropolitanus, sp. nov. Minus elongatus, postice sat dilatatus; sat nitidus; brunneo-testaceus; supra pilis brevibus suberectis sat crebre vestitus; clypeo (hoc antice rotundato) fronteque fortiter sat crebre minus rugulose punctulatis, ut plana sat disparia visis; labro summo clypei planum haud attingenti; antennis 9-articulatis, articulo 3^{o} quam 2^{us} multo breviori; prothorace quam longiori ut 11 ad 6 latiori, antice leviter angustato, supra subtilius subcrebre punctulato (puncturis circiter 17 in segmenti longitudine), lateribus sat arcuatis, angulis anticis sat acutis minus productis posticis (superne visis) rotundato-obtusis, basi haud sinuata, margine basali æquali sat subtili; elytris subtilius sat crebre concinne punctulatis (trans elytron puncturis circiter 24); pygidio (maris sparsim, feminæ crebre) punctulato; coxis posticis quam metasternum parum brevioribus, quam segmentum ventrale 2^{um} multo longioribus; tibiis anticis extus dentibus 2 inferioribus magnis et altero subobsoleto armatis; tarsorum posticorum articulo basali maris 2^{o} sat æquali (feminæ nonnihil breviori), quam 3^{us} maris sat (feminæ paullo) longiori; unguiculis appendiculatis. Long., 3 l.; lat., $1\frac{3}{5}$ l.

This species, like *H. socius*, Blackb., has the closeness of puncturation of the pronotum somewhat on the dividing line between the preceding and the immediately following aggregates. The puncturation of its head is of a type not very usual, and the extreme feebleness of the uppermost tooth of its front tibiæ is notable. The slightly more pronounced puncturation of the dorsal surface noticeable in the females of many *Heteronyces* is in this species very conspicuous on the pygidium. All the specimens that I have seen are of a very pale-brown colour.

New South Wales: Sydney (Mr. Lea, etc.).

H. ingratus, sp. nov. Minus elongatus, postice leviter vel vix dilatatus; minus nitidus; obscure brunneus, antennis

palpis pedibusque rufis; supra pilis brevibus suberectis crebrius vestitus; clypeo crebre ruguloso antice late rotundato; labro summo clypei planum haud attingenti; fronte crebre nonnihil rugulose punctulata; clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3^{o} quam 2^{us} manifeste breviori; prothorace quam longiori ut 7 ad 4 latiori, antice leviter angustato, supra crebre sat fortiter punctulato (puncturis circiter 26 in segmenti longitudine), lateribus leviter arcuatis, angulis anticis vix acutis modice productis posticis (superne visis) obtuse-rectis, basi leviter bisinuata, margine basali sat forti ad latera magis elevato; elytris sat manifeste substriatis, crebre minus fortiter subaspere punctulatis (trans elytron puncturis circiter 30); pygidio minus fortiter sat crebre punctulato: coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2^{um} multo longioribus; femoribus posticis inter series sparsius subtilius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} vix breviori, quam 3^{us} puallo longiori; unguiculis appendiculatis. Long., $3\frac{1}{2}$-4 l.; lat., $1\frac{4}{5}$-2 l.

A dull-brown, obscure-looking species, its most characteristic features being the comparatively great width of its prothorax in front (which gives the segment a subquadrate appearance) and the close asperate and by no means fine puncturation of its elytra. I think I have both sexes before me, scarcely distinguishable except by the male being a little smaller than the female and of narrower build.

New South Wales; Blue Mountains.

H. hothamensis, sp. nov. Minus elongatus, postice leviter dilatatus: sat nitidus; ferrugineus, antennarum flabello testaceo: supra pilis brevibus suberectis crebrius vestitus: clypeo confertim rugulose punctulato, antice late rotundato; labro summo clypei planum haud attingenti; fronte crebre sat rugulose punctulata: clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis; articulo 3^{o} quam 2^{us} breviori: prothorace quam longiori ut 7 ad 4 latiori, antice modice angustato, supra crebre sat fortiter punctulato (puncturis circiter 24 in segmenti longitudine), lateribus leviter arcuatis, angulis anticis vix acutis modice productis posticis (superne visis) obtuse-rectis, basi leviter bisinuata, margine basali ad latera paullo magis elevato; elytris sat crebre minus fortiter sat concinne punctulatis (trans elytron puncturis circiter 26); pygidio crebre subtilius punctulato; coxis posticis quam metasternum paullo brevioribus, quam segmentum ventrale 2^{um} multo longioribus; femoribus pos-

ticis inter series sparsim sat subtiliter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} sat breviori, quam 3^{us} vix longiori: unguiculis appendiculatis. Long., 4 l.; lat., 2 l.

I believe my two examples of this insect to be females. The species is somewhat close to the preceding *(H. ingratus)*, but certainly distinct. Its most noticeable distinctive characters are in its elytral puncturation (the punctures well defined and isolated one from another, without rugulosity) and in the very evidently greater length of the 2nd joint of the hind tarsi, as compared with the basal joint, in the same sex. It is likely that the tarsal distinction is less pronounced in the male.

Victorian Alps: Mount Hotham.

H. debilicollis, sp. nov. Minus elongatus, postice leviter dilatatus; nitidus; testaceo-ferrugineus; supra pilis brevibus adpressis crebrius vestitus; clypeo (hoc antice rotundato) fronteque crebre ruguloso, ut plana sat disparia visis; labro clypei planum haud attingenti, antennis 9-articulatis, articulo 3^{o} quam 2^{us} breviori; prothorace quam longiori ut 13 ad 6 latiori, antice minus angustato, supra crebre minus fortiter punctulato (puncturis circiter 24 in segmenti longitudine), lateribus modice arcuatis, margine laterali antice quam in media parte haud plane magis elevato, angulis anticis sat rectis parum productis posticis (superne visis) rotundato-obtusis, basi bisinuata, margine basali subtili ad latera paullo magis elevato; elytris sat crebre minus fortiter paullo inequaliter punctulatis (trans elytron puncturis circiter 26), latera versus vix manifeste substriatis; pygidio minus crebre minus fortiter punctulato; coxis posticis quam metasternum paullo brevioribus, quam segmentum ventrale 2^{um} multo longioribus; femoribus posticis inter series sparsim minus fortiter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali 2^{o} sat æquali quam 3^{us} parum longiori; unguiculis appendiculatis. Long., $3\frac{2}{5}$ l.: lat., 1 7-10 l.

Among its near allies this species is best characterized by the lateral edging of its pronotum, which is scarcely perceptibly more elevated at the front angles than at its middle. This character separates it strongly from *H. ingratus*, *hothamensis*, *alpicola*, and *punctipes*, and less strongly from *elongatulus*, *eremita*, and *nigrescens*. Compared with *elongatulus* it is of less elongate build, more nitid, with the punctures of the pronotum distinctly less fine and those of the elytra very evidently less close and larger. Compared with *eremita* it is notably more nitid, with the lateral outline of its prothorax different and the puncturation of its elytra very evidently less close. Compared with *nigrescens* it differs strongly (disregarding colour) by the basal edging of its pronotum and by the roundly obtuse hind angles of its prothorax (viewed from above), the last-mentioned character separating it also, more or less strongly, from all the other species named above.

Tasmania; Launceston (Mr. Lea).

H. tæniensis, sp. nov. Minus elongatus, postice sat dilatatus; sat nitidus; ferrugineus; supra pilis brevibus adpressis crebrius vestitus; clypeo crebre ruguloso, antice late rotundato; labro clypei planum haud attingenti; fronte fortiter subrugulose (vel vix rugulose, ? maris) punctulata; clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3º quam 2us paullo breviori; prothorace quam longiori ut 12 ad 7 latiori, antice parum angustato, supra sat crebre minus fortiter punctulato (puncturis circiter 22 in segmenti longitudine), lateribus (superne visis) leviter arcuatis, angulis anticis subacutis parum productis posticis (superne visis) obtusis, basi leviter bisinuata, margine basali ad latera paullo magis elevato; elytris vix manifeste substriatis, crebre minus fortiter punctulatis (trans elytron puncturis circiter 26); pygidio subtilius sat crebre punctulato; coxis posticis quam metasternum paullo brevioribus, quam segmentum ventrale 2um multo longioribus; femoribus posticis inter series fere lævibus; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali 2º sat æquali, quam 3us paullo longiori; unguiculis appendiculatis. Long., 4 l.; lat., 2 l.

This species is another near ally of the group of closely associated species referred to in the notes of the preceding (*H. debilicollis*). It differs from them all in having the punctures of its pronotum distinctly larger than of its elytra. The increased elevation of the lateral margins near the front angles of its pronotum also distinguishes it from *debilicollis*, and the feeble hind angles of its prothorax from *ingratus*, *Alpicola*, *punctipes*, *elongatulus*, *eremita*, and *nigrescens*. It is nearest to *hothamensis*, compared with which species its prothorax is less narrowed in front, its elytra have traces of substriation, the hind angles of its prothorax are decidedly more rounded off, and its hind femora are all but punctureless between the two series of punctures. In one of the specimens before me (which I believe to be a male) the puncturation of the frons and pygidium is a little less strong and rugulose than in the others which are probably females, their ventral segments being more convex.

New South Wales; Forest Reefs (Mr. Lea).

H. punctipes, sp. nov. Minus elongatus, postice leviter dilatatus; sat nitidus; ferrugineus, antennarum flabello testaceo; supra pilis brevibus suberectis crebrius vestitus; clypeo sat crebre ruguloso, antice subtruncato vix manifeste sinuato; labro summo clypei planum haud attingenti; fronte sat crebre sat grosse rugulose punctulata; clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3° quam 2^{us} sat breviori; prothorace quam longiori ut 12 ad 7 latiori, antice modice angustato, supra crebre minus fortiter punctulatis (puncturis circiter 24 in segmenti longitudine), lateribus parum arcuatis, angulis anticis vix acutis parum productis posticis (superne visis) rectis, basi parum bisinuata, margine basali ad latera summa paullo magis elevato; elytris crebre minus fortiter nec rugulose punctulatis (trans elytron puncturis circiter 32); pygidio sat crebre minus fortiter punctulato; coxis posticis quam metasterum paullo brevioribus, quam segmentum ventrale 2^{um} multo longioribus femoribus posticis inter series sat crebre fortius sat æqualiter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali 2° sat æquali, quam 3^{us} sat longiori; unguiculis appendiculatis. Long., 4 l.; lat., 2 l.

The affinity of this species to those placed near it in the tabulation is fairly close. Its most distinctive features among them seem to be the form of its prothorax and the sculpture of its hind femora. The sides of its prothorax are only very lightly arched; the segment (viewed from above) is not or scarcely wider in front of than at the hind angles, and the hind angles themselves (viewed from above) are well-defined right angles. The close, even, and somewhat coarse sculpture of the hind femora is very different from the corresponding sculpture in allied species. The puncturation of the elytra is about as close as in *H. ingratus*, but is not asperate. I believe the unique type to be a male, the female if distinguishable having probably elytral sculpture not quite as smooth and the basal joint of the hind tarsi a trifle shorter.

New South Wales; Galston.

H. elongatus, sp. nov. Sat elongatus, postice sat dilatatus; vix nitidus; ferrugineus, antennarum flabello testaceo; supra pilis brevibus suberectis crebrius vestitus; clypeo crebre ruguloso, antice rotundato; labro summo clypei planum haud attingenti; fronte sat crebre rugulose punctulata; clypeo fronteque ut plana minus disparia visis;

antennis 9-articulatis, articulo 3^{o} quam 2^{us} breviori; prothorace quam longiori ut 3 ad 2 latiori, antice sat fortiter angustato, supra sat crebre minus fortiter punctulato (puncturis circiter 22 in segmenti longitudine), lateribus leviter arcuatis, angulis anticis sat obtusis parum productis posticis (superne visis) rectis, basi leviter bisinuata, margine basali subtili ad latera paullo magis elevato; elytris sat manifeste substriatis, crebre minus fortiter subaspere punctulatis (trans elytron puncturis circiter 30); pygidio crebrius subtiliter punctulato; coxis posticis quam metasternum paullo brevioribus, quam segmentum ventrale 2^{um} multo longioribus; femoribus posticis inter series sparsius minus subtiliter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} nonnihil breviori, quam 3^{us} paullo longiori; unguiculis appendiculatis. Long., $3\frac{3}{5}$ l.: lat., $1\frac{3}{5}$ l.

Another species somewhat close to *H. punctipes* and its allies. It is distinguishable among them by its narrow elongate form and its prothorax strongly narrowed in front. The hind angles of its prothorax are well-defined right angles (viewed from above) as in *punctipes*. The sculpture of the elytra is near that of *H. ingratus*, but is finer and less strongly asperate. The unique type is almost certainly a male.

Victoria; near Harrietville.

H. eremita, sp. nov. Modice elongatus, postice leviter dilatatus; sat nitidus; ferrugineus, antennarum flabello testaceo; supra pilis brevibus suberectis crebrius vestitus; clypeo crebre ruguloso, antice rotundato; labro summo clypei planum haud attingenti; fronte rugulose sat crebre punctulata, clypeo fronteque ut plana parum disparia visis; antennis 9-articulatis, articulo 3^{o} quam 2^{us} breviori; prothorace quam longiori ut 9 ad 5 latiori, antice modice angustato, supra sat crebre minus fortiter punctulato (puncturis circiter 22 in segmenti longitudine), lateribus (superne visis) pone medium sat dilatato-rotundatis, angulis anticis vix acutis minus productis posticis (superne visis) obtuse rectis, basi leviter bisinuata, margine basali sat subtili ad latera paullo magis elevato; elytris manifeste substriatis, crebre minus fortiter subaspere punctulatis (trans elytron puncturis circiter 30); pygidio subtilius minus crebre punctulato; coxis posticis quam metasternum paullo brevioribus quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series sparsius subtilius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali

quam 2^{us} parum breviori, quam 3^{us} sat longiori; unguiculis appendiculatis. Long., $3\frac{2}{5}$ l.; lat., $1\frac{2}{5}$-$1\frac{1}{2}$ l.

This is another species with close affinity to *H. punctipes* and its allies. Among them it is of smaller size than those placed before it in the tabulation, differs from them all in the sides of its prothorax (viewed from above), very distinctly rotundate-dilatate between the middle and the base. The sculpture of its dorsal surface differs very little from that of *H. elongatulus*, but is a trifle more decidedly asperate. I think that I have both sexes before me, but if so there is scarcely any difference between them except in the female being of wider build and more dilated in the hinder part of the elytra.

Victoria; Dividing Range.

H. nigrescens, sp. nov. Minus elongatus, postice sat dilatatus; sat nitidus; niger, capite prothoraceque nonnihil picescentibus, antennis palpis pedibusque obscure ferrugineis; supra pilis brevibus suberectis crebrius vestitus; clypeo (hoc antice rotundato) fronteque crebre rugulose punctulatis, ut planum fere continuum visis; labro clypei planum haud attingenti; antennis 9-articulatis, articulo 3^{o} quam 2^{us} breviori; prothorace quam longiori ut 9 ad 5 latiori, antice modice angustato, supra sat crebre minus subtiliter punctulato (puncturis circiter 22 in segmenti longitudine), lateribus modice arcuatis, angulis anticis vix acutis minus productis posticis (superne visis) rectis, basi leviter bisinuata, margine basali sat subtili absolute æquali: elytris obsolete substriatis, crebre minus fortiter vix subaspere punctulatis (trans elytron puncturis circiter 27); pygidio sat crebre sat subtiliter punctulato; coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series sparsius minus subtiliter punctulatis: tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} paullo breviori quam 3^{us} sat longiori; unguiculis appendiculatis. Long., 3 l.; lat., $1\frac{1}{2}$ l.

The unique type (which I believe to be a female) of this species differs from *H. punctipes* and its allies chiefly in its black colouring (perhaps a variable character), and in the basal edging of its pronotum fine and even in its whole length—without any dilatation or increase of elevation even at the hind angles of the segment. In respect of the latter character it is nearest to *H. eremita* in which the lateral accentuation of the basal edging, though quite distinct, is not very strong. The lateral outline of the prothorax, however, of this species is very different from the corresponding outline in *H. eremita*.

Victoria: Nelson.

H. simplicicollis, Blackb. Modice elongatus, postice sat dilatatus; sat nitidus; brunneo-testaceus, capite prothoraceque rufescentibus; supra pilis brevibus suberectis sat crebre vestitus; clypeo (hoc antice rotundato, in media parte nonnihil subtruncato) fronteque subgrosse sat crebre ruguloso-punctulatis, ut plana multo disparia visis; labro clypei planum haud attingenti; antennis 9-articulatis, articulo 3° perbrevi quam 2^{us} multo breviori; prothorace quam longiori ut 9 ad 5 latiori, antice minus angustato, supra sat subtiliter vix crebre punctulato (puncturis circiter 20 in segmenti longitudine), lateribus leviter arcuatis, angulis anticis vix acutis minus productis posticis rotundato-obtusis, basi æqualiter rotundata, margine basali subtili ad latera vix magis elevato; elytris lineis 2 subcostuliformibus vix perspicue instructis, subfortiter vix crebre nec aspere punctulatis (trans elytron puncturis circiter 23); pygidio (maris sparsim, feminæ magis crebre) subtilius punctulato; coxis posticis quam metasternum perspicue brevioribus, quam segmentum ventrale 2^{um} multo longioribus; femoribus posticis inter series sparsim subtiliter punctulatis; tibiis anticis extus tridentatis (dente supremo parvo); tarsorum posticorum articulo basali quam 2^{us} sat breviori, 3° sat æquali; unguiculis appendiculatis. Long., $3\frac{1}{5}$ l.; lat., $1\frac{1}{2}$-$1\frac{3}{5}$ l.

The hind margin of the prothorax evenly rounded without any sinuation distinguishes this species from nearly all its near allies. *H. testaceus*, Blackb., resembles it in this respect and in general appearance, but is easily separated from it by having, *inter alia*, an exceptionally wide prothorax and a labrum of unusual shape. *H. metropolitanus*, Blackb., also considerably resembles it, but differs not only in the larger and less numerous punctures of its pronotum but also, *inter alia*, in the basal joint of its hind tarsi very evidently longer in both sexes as compared with the 2nd joint.

Victoria; Australian Alps (about 6,000 ft. elevation).

H. affinis, sp. nov. Modice elongatus, postice sat dilatatus; modice nitidus; obscure brunneus, antennis palpis pedibusque dilutioribus; supra pilis adpressis sparsim vestitus; clypeo (hoc antice late rotundato) fronteque sat crebre fortiter rugulosis, ut plana sat disparia visis; labro nitido vix perspicue punctulato, clypei planum haud attingenti; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 15 ad 8 latiori, antice sat angustato, supra sat fortiter vix crebre punctulato (puncturis circiter 20 in segmenti longitudine), lateribus (superne visis) sat rotundatis, angulis anticis sat acutis leviter productis posticis (superne visis) subrectis, basi leviter bisinuata, margine basali ad latera vix magis elevato; elytris vix perspicue substriatis, subcrebre sat grosse punctulatis (trans elytron puncturis circiter 20); pygidio subtilius vix crebre punctulato; coxis posticis quam metasternum paullo brevioribus, quam segmentum ventrale 2^{um} multo longioribus; femoribus posticis inter series sparsim subtilius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} perspicue breviori, quam 3^{us} parum longiori; unguiculis appendiculatis. Long., 5 l.; lat., $2\frac{1}{2}$ l.

This species differs from *H. nubilus* in respect chiefly of characters that do not lend themselves very readily to a tabular statement. It is notably larger and not nearly so dark in colour, and its dorsal surface is distinctly more coarsely punctulate. It can be readily separated, however, by the very different sculpture of its labrum (mentioned in the tabulated statement above).

Victoria; Dividing Range.

H. nubilus, sp. nov. Modice elongatus, postice sat dilatatus; sat nitidus; niger, antennis palpis pedibus et nonnullorum exemplorum corpore subtus plus minusve rufis; supra pilis brevibus adpressis et in capite prothoracisque marginibus nonnullis longioribus sparsim vestitus; clypeo (hoc antice late rotundato) fronteque sat crebre rugulosis, ut plana sat disparia visis; labro postice crebre ruguloso clypei planum haud attingenti; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 7 ad 4 latiori, antice sat angustato, supra crebre subfortiter punctulato (puncturis circiter 22 in segmenti longitudine), lateribus (superne visis) leviter arcuatis, angulis anticis subacutis modice productis posticis (superne visis) rectis, basi leviter bisinuata, margine basali ad latera magis elevato; elytris manifeste substriatis, fortiter vix crebre punctulatis (trans elytron puncturis circiter 20); pygidio subfortiter minus crebre punctulato; coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series sparsim subtilius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} subbreviori quam 3^{us} sublongiori; unguiculis appendiculatis. Long., $3\frac{1}{2}$-4 l.; lat., $1\frac{4}{5}$-2 l.

I have seen numerous specimens of this insect, and find the colour of the dorsal surface black in all of them. Those

with the body reddish beneath I believe to be more or less immature. I do not observe any good sexual characters, beyond that the males seem to be a trifle smaller and of more parallel form than the females. The species is somewhat unusually nitid among the *Heteronyces*. It bears much resemblance to *H. satelles*, Blackb., which, however, *inter alia*, has very much shorter hind coxæ.

South Australia; common at times in the neighbourhood of Adelaide.

H. elytrurus, sp. nov. Minus elongatus, postice sat dilatatus; sat nitidus; piceo-niger, antennis palpis tibiis tarsis et (nonnullorum exemplorum) elytris rufis; supra pilis brevibus suberectis crebrius vestitus; clypeo (hoc antice rotundato) fronteque crebre rugulosis, ut plana sat disparia visis; labro clypei planum haud attingenti; antennis 9-articulatis, articulo 3° quam 2^{us} multo breviori; prothorace quam longiori ut 5 ad 3 latiori, antice sat angustato, supra fortius minus crebre punctulato (puncturis circiter 19 in segmenti longitudine), lateribus (superne visis) sat arcuatis, angulis anticis subacutis minus productis posticis (superne visis) rectis, basi bisinuata, margine basali ad latera nonnihil magis elevato; elytris manifeste substriatis, fortius minus crebre subrugulose punctulatis (trans elytron puncturis circiter 20), paullo ante apicem subito depressis; pygidio sparsius minus fortiter punctulato; coxis posticis quam metasternum paullo brevioribus, quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series sparsim minus subtiliter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} sat breviori, 3° sat æquali; unguiculis appendiculatis. Long., $2\frac{3}{5}$ l.; lat., $1\frac{2}{5}$ l.

In general appearance and sculpture this insect looks like a dwarf of *H. Alpicola*, Blackb., but differs *inter alia* in its prothorax evidently less transverse, its colouring, and especially in the peculiar structure of its elytra, which become suddenly depressed a short distance before the apex, looking when viewed from above as if the extreme apical part became abruptly less thick than the rest of the elytra. I believe my two examples of this species to be male and female, the elytra of the female reddish-brown, those of the male nearly black. I do not find any notable sexual difference (unless that of colour be sexual) except in the evidently flatter abdomen of the male.

Victoria; Mount Hotham (elevation 6,000 ft.).

H. copiosus, sp. nov. Minus elongatus, postice sat dilatatus; sat nitidus; brunneus, antennis palpis pedibusque rufis;

supra pilis brevibus suberectis sat dense vestitus; clypeo (hoc antice rotundato) fronteque crebre rugulosis, fere ut planum continuum visis; labro clypei planum haud attingenti; antennis 9-articulatis, articulo 3° quam 2ᵘˢ breviori; prothorace quam longiori ut 12 ad 7 latiori, antice sat angustato, supra crebre rugulose nec grosse punctulato (puncturis circiter 32 in segmenti longitudine), lateribus (superne visis) leviter arcuatis, angulis anticis sat acutis modice productis posticis (superne visis) obtuse rectis, basi bisinuata, margine basali ad latera nonnihil magis elevato; elytris minus perspicue substriatis, subtiliter granulatis, crebre squamose minus fortiter punctulatis (trans elytron puncturis circiter 40); pygidio subtilius nec crebre punctulato; coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2ᵘᵐ sat longioribus; femoribus posticis inter series fortius minus sparsim punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali 2° sat æquali, quam 3ᵘˢ paullo longiori; unguiculis appendiculatis. Long., 5½-6 l.; lat., 2½-3⅕ l.

In general appearance suggestive of some of the members of the preceding subgroup, this species is at once distinguishable from them by the short 3rd joint of its antennæ and by the outline of its clypeus forming an even curve to the point of actual contact with the eye (a frequent character in this 2nd subgroup). It is rather close to *H. gracilipes*, Blackb., from which it differs (disregarding colour), *inter alia*, by the squamose and closer puncturation of its elytra. The female differs from the male in being more robust and wider, with hind tarsi shorter and stouter. I have a single example of small size (long., 4½ l.) and pale castaneous colour, from the Blue Mountains, and one from Victoria of normal size and colour, but with elytra a little less closely punctulate than the form described, which may represent two closely allied species, but in the absence of more numerous specimens of these latter it seems best to regard them provisionally as local varieties.

New South Wales; Forest Reefs (Mr. Lea).

H. orbus, sp. nov. Minus elongatus, postice sat dilatatus, sat nitidus; brunneus, antennis palpisque rufis; supra pilis brevibus suberectis vestitus; clypeo crebre ruguloso, antice rotundato; labro clypei planum haud attingenti; fronte rugulose subgrosse crebre punctulata, clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3° quam 2ᵘˢ breviori; prothorace quam longiori ut 12 ad 7 latiori, antice sat angustato; supra fortiter sat crebre sat rugulose punctulato (puncturis circiter 22

in segmenti longitudine), lateribus (superne visis) pone medium dilatato-rotundatis, angulis anticis sat acutis sat productis posticis (superne visis) rotundato-obtusis, basi nonnihil bisinuata, margine basali ad latera vix magis elevato; elytris crebre fortiter punctulatis (trans elytron puncturis circiter 22); pygidio subtilius minus crebre punctulato; coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2^{um} paullo longioribus; femoribus posticis inter series fortius minus sparsim punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} paullo breviori, quam 3^{us} paullo longiori; unguiculis appendiculatis. Long., $4\frac{2}{5}$ l.; lat., $2\frac{1}{5}$ l.

The shortness of the hind coxæ of this species is suggestive (in the tabulation) of association with *H. tasmanicus* and its allies, but although the coxæ themselves are not much longer than in some of those species they almost cover the 1st ventral segment. The punctures of the dorsal surface are not very numerous when counted, but nevertheless being large they are decidedly closely packed. The insect is not very close to any other known to me. I believe the unique type to be a male.

New South Wales; probably Mulwala (Mr. Sloane).

H. interioris, sp. nov. Modice elongatus, postice minus dilatatus; sat nitidus; castaneus; supra pilis brevibus adpressis sat sparsim vestitus; clypeo crebre ruguloso, antice rotundato; labro clypei planum haud attingenti; fronte grosse rugulosa antice perpendiculari et carinata; clypeo fronteque ut plana valde disparia visis; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 9 ad 5 latiori, antice minus angustato, supra subfortiter minus crebre punctulato (puncturis circiter 19 in segmenti longitudine), lateribus (superne visis) leviter arcuatis, angulis anticis vix acutis minus productis posticis (superne visis) obtusis, basi leviter bisinuata, margine basali subtili ad latera paullo magis elevato; elytris minute granulatis, crebre sat subtiliter squamose punctulatis (trans elytron puncturis circiter 30); pygidio sat crebre minus fortiter punctulato; coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series sparsius subtilius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} breviori. quam 3^{us} paullo longiori; unguiculis appendiculatis. Long., $4\frac{2}{5}$ l.; lat., $2\frac{1}{10}$ l.

The perpendicular front of its frons distinguishes this species from nearly all the others of the group. The perpendicular face is smooth and nitid and its height is about equal to the thickness of one of the palpi. The species is nearest (but not very near) to *H. severus*, Blackb., from which it differs, *inter alia*, by the extremely fine basal edging of its pronotum, by the very much finer and closer puncturation of its elytra (on which the punctures are much finer and closer than those of the pronotum), and by the puncturation also very much finer on the ventral segments.

Central Australia.

H. sulcifrons, sp. nov. Modice elongatus, postice minus dilatatus; sat nitidus; castaneus; supra pilis brevibus suberectis subcrebre vestitus; clypeo crebre ruguloso, antice late rotundato; labro clypei planum haud attingenti; fronte grosse sparsim punctulata, antice perpendiculari et carinata, postice transversim sat profunde sulcata; clypeo fronteque ut plana valde disparia visis; antennis 9-articulatis, articulo, 3° quam 2^{us} breviori; prothorace quam longiori ut 9 ad 4 lateriori, antice sat angustato, supra sat fortiter minus crebre punctulato (puncturis circiter 15 in segmenti longitudine), lateribus (superne visis) pone medium sat dilatato-rotundatis, angulis anticis fere rectis haud productis posticis (superne visis) rotundato-obtusis, basi vix sinuata, margine basali subtili ad latera haud magis elevato; elytris fortius minus crebre punctulatis (trans elytron puncturis circiter 20); pygidio fortius subcrebre punctulato; coxis posticis quam metasternum sat brevioribus; quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series fere lævibus; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} manifeste vel vix breviori, 3° sat æquali vel nonnihil longiori; unguiculis appendiculatis. Long., $2\frac{1}{5}$-$2\frac{3}{5}$ l.; lat., $1\frac{1}{5}$-$1\frac{3}{10}$ l.

Easily distinguishable in the subgroup by the remarkable sculpture of its frons, also by its small size, etc. The sexes seem to be scarcely distinguishable except by the basal joint of the hind tarsi a trifle longer in comparison to the next two joints in the sex which I take to be the male.

Western Australia; Lake Austin and Murchison River (Mr. French, etc.).

H. striatus, sp. nov. Minus elongatus, postice vix vel modice dilatatus; sat nitidus; rufo-ferrugineus; supra pilis sat elongatis et nonnullis brevioribus erectis sparsim vestitus; clypeo crebre ruguloso, antice late rotundato vel (? maris) in medio leviter sinuato; labro clypei planum haud attingenti, leviter arcuato; fronte sat crebre sat grosse ruguloso-punctulata; clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3°

quam 2^{us} breviori; prothorace quam longiori ut 12 ad 7 latiori, antice modice angustato, supra sparsim sat grosse nonnihil acervatim punctulato (puncturis circiter 12 in segmenti longitudine), lateribus (superne visis) leviter arcuatis, angulis anticis sat acutis sat productis posticis (superne visis) obtusis fere rectis, basi bisinuata, margine basali ad latera paullo magis elevato; elytris striatis sparsim granulatis, sparsim subgrosse nonnihil subseriatim punctulatis (trans elytron puncturis circiter 14); pygidio sparsissime punctulato; coxis posticis quam metasternum sat multo brevioribus, quam segmentum ventrale 2^{um} minus longioribus; segmentis ventralibus minus sparsim confuse subfortiter (præsertim latera versus) punctulatis; femoribus posticis sat dilatatis, inter series lævibus; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} sat breviori 3° sat æquali vel subbreviori; unguiculis appendiculatis. Long., 5-5$\frac{3}{4}$ l.; lat., 2$\frac{1}{2}$-3 l.

This species and the next two illustrate conspicuously the tendency in *Heteronyx* to strongly marked structural differences in combination with close superficial resemblance, inasmuch as they are extremely like in general appearance to some species of Group III. (*H. merus*, Blackb., etc.), which have strongly bifid claws, while the claws of these are typically appendiculate. I have two specimens of *H. striatus*, evidently male and female—the male notably smaller and narrower than the female and presenting the unusual (in *Heteronyx*) sexual character of a distinctive clypeal outline (unless it be an accidental peculiarity of an individual specimen). The striation of the elytra is unusually well defined, but, as usual in *Heteronyx* when present, has no relation to the punctures, which are scattered indiscriminately on striæ and interstices.

New South Wales; Emu Plains (Mr. Sloane).

H. salebrosus, sp. nov. Minus elongatus, postice leviter dilatatus; sat nitidus; rufo-ferrugineus; ut *H. striatus*, Blackb., vestitus; capite ut *H. striati* (clypeo antice late rotundato); prothorace fere ut *H. striati*, sed supra minus grosse sat magis crebre nec acervatim punctulato (puncturis circiter 17 in segmenti longitudine); elytris manifeste striatis, quam *H. striati* magis crebre punctulatis (trans elytron puncturis circiter 18), sparsissime vix granulatis; cetera fere ut *H. striati*, sed segmentis ventralibus sublævibus (seriebus puncturarum setiferarum exceptis). Long., 5$\frac{3}{4}$-6 l.; lat., 3-3$\frac{1}{5}$ l.

This species and *H. striatus* and *H. seriatus* form an aggregate so easily identifiable in *Heteronyx* that it seems sufficient to describe one of them completely and then specify the characters that distinguish the others from it. It may be noted that the present species is of evidently less convex form than *H. striatus*. I have two specimens, both of which are, I think, females. The less coarse, more evenly distributed, and much more numerous punctures of the pronotum separate *salebrosus* quite readily from *striatus*. On the ventral segments of the former there are only a few fine punctures besides the transverse series of larger setiferous punctures, while on those of *striatus* (especially on the lateral part) there is fairly close quite strong puncturation among which the transverse series are scarcely distinguishable as series.

North Queensland; Diamantina (Mr. Koebele).

H. seriatus, sp. nov. Sat elongatus, postice vix dilatatus; subdepressus; minus nitidus; ferrugineus; supra ut *H. striatus*, Blackb., vestitus; capite fere ut *H. striati* (clypeo exempli typici antice subtruncato), sed labro fortiter arcuato), clypeo fronteque fere planum continuum efficientibus; prothorace fere ut *H. striati* sed antice paullo minus angustato, lateribus (superne visis) manifeste minus arcuatis, margine basali ad latera quam alibi vix magis elevato; elytris fere ut *H. striati* sed puncturis paullo minoribus nonnihil magis crebre (trans elytron circiter 16) magis seriatim impressis; segmentis ventralibus sublævibus (seriebus puncturarum setiferarum exceptis). cetera ut *H. striati*. Long., 5½ l.; lat., 2½ l.

This species is notably less nitid, narrower, more elongate, more parallel than either *H. striatus* or *H. salebrosus*, and is distinctly of more depressed form. Other distinctions from *H. striatus* are enumerated above. The form of the labrum is worthy of especial notice; looked at from in front it is seen to be strongly arched, while in its two allies the arch of the labrum is quite feeble, resembling that of *H. jubatus*. The unusually seriate arrangement of the elytral puncturation is also a distinctive character. I believe the unique type to be a male. The puncturation of the dorsal surface (especially of the pronotum) is very considerably more sparse than in *H. salebrosus*.

North Queensland; Gulf of Carpentaria (Mr. French).

H. Carteri, sp. nov. Minus elongatus, postice vix dilatatus; minus nitidus; obscure ferrugineus, corpore subtus picescenti; supra pilis erectis minus elongatis confertim (nonnullis multo longioribus intermixtis) vestitus; clypeo (hoc antice late rotundato) fronteque crebre rugulosis, ut plana sat disparia visis; labro clypei planum haud attingenti; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 11 ad 7 latiori,

antice sat angustato, supra creberrime subtilius ruguloso (granulis circiter 35 in segmenti longitudine), lateribus (superne visis) leviter arcuatis, angulis anticis parum acutis minus productis posticis (superne visis) obtuse rectis, basi bisinuata, margine basali ad latera haud magis elevato; elytris crebre subtiliter vix rugulose punctulatis (trans elytron puncturis circiter 40): pygidio sat nitido subtilius sat crebre punctulato; coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series crebrius subtilius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} paullo breviori, quam 3^{us} paullo longiori; unguiculis appendiculatis. Long., 5$\frac{3}{4}$ l.; lat., 3 l.

Easily distinguishable from all allied species known to me except *pubescens*, Er., by the very close erect pilosity of its elytra. From *pubescens* it differs by the character specified in the tabulation, and also by, *inter alia*, the much finer and less rugulose puncturation of its dorsal surface and its wider clypeus, which is evidently less rounded in outline. *H. deceptor*, Blackb., is much less pilose, with elytra more rugulose even than those of *H. pubescens*. The close pilosity of its elytra makes this species appear less nitid than it really is, and renders it difficult to count the punctures. The punctures of the pronotum are scarcely distinct among the granule-like rugulosity of their interstices.

Victoria; Mount Hotham (Mr. H. J. Carter).

H. comans, sp. nov. Modice elongatus, postice leviter dilatatus; sat nitidus; niger, elytris postice vel totis rufescentibus, nonnullorum exemplorum pedibus rufescentibus; supra pilis perlongis erectis vestitus; clypeo (hoc antice late rotundato) fronteque crebre rugulosis, fere planum continuum efficientibus; labro clypei planum haud attingenti; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 10 ad 6 latiori, antice sat angustato, supra ante medium in medio impresso, crebre subtilius vix rugulose punctulato (puncturis circiter 24 in segmenti longitudine), lateribus (superne visis) leviter arcuatis, angulis anticis acutis minus productis posticis (superne visis) sat rectis, basi bisinuata, margine basali ad latera haud magis elevato; elytris substriatis, subfortiter crebre sat rugulose punctulatis (trans elytron puncturis circiter 25): pygidio sat fortiter sat crebre punctulato: coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} sat longioribus; segmentis 3° 4° que (? maris solum) ventralibus pilis perlongis seriatim transversim vestitis;

femoribus posticis inter series sat crebre minus fortiter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali maris quam 2^{us} paullo breviori quam 3^{us} paullo longiori, feminæ quam 2^{us} sat multo breviori 3° sat æquali; unguiculis appendiculatis. Long., $3\frac{3}{5}$-4 l.; lat., $1\frac{4}{5}$-2 l.

I have seen 7 examples of this insect, of which only one is a female; it is without the long, erect ventral hairs of the male, but is an abraded specimen; also its tarsi are distinctly shorter and stouter than those of the male. The impression on the middle of the front part of the pronotum is traceable in all the specimens, but is much larger and deeper in some than in other individuals. In general appearance this species seems to be near *H. jubatus*, Blackb., which however belongs to Group VIII., having the labrum elevated and forming a trilobed outline of the head.

Tasmania; Hobart and Mount Wellington (Mr. Griffith).

H. erectus, sp. nov. Modice elongatus, postice parum dilatatus; sat nitidus; ferrugineus; supra fere glaber; clypeo crebre ruguloso, antice late profunde subquadratim exciso; fronte crebre sat rugulose punctulata; labro clypei planum haud attingenti; clypeo fronteque ut plana valde disparia visis; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 16 ad 9 latiori, antice fortiter angustato, supra subtiliter minus crebre punctulato (puncturis circiter 22 in segmenti longitudine), lateribus (superne visis) sat arcuatis, angulis anticis vix acutis parum productis posticis (superne visis) obtusis, basi leviter bisinuata, margine basali ad latera vix magis elevato; elytris sat fortiter minus crebre punctulatis (trans elytron puncturis circiter 22), ad apicem transversim depressis; pygidio granulis minutis setiferis minus crebre instructo; coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series sat crebre subtilius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} multo (quam 3^{us} vix) breviori; unguiculis appendiculatis. Long., 5 l.; lat., $2\frac{1}{2}$ l.

Structurally this species is somewhat close to *H. occidentalis*, Blackb., from which however it differs by many superficial characters. Its labrum looked at from in front is of unusual shape, the upper and lower planes being placed at right angles to each other and are very nitid, the upper plane appearing as an equilateral triangle. The emargination of the clypeus looks as if a piece almost in the form of a parallelogram had been cut out. The puncturation of the pronotum is conspicuously finer than in *occidentalis* and the hind angles of the prothorax are considerably blunter. The depression at the apex of the elytra is much feebler. I believe the unique type to be a male.

Western Australia; Swan River (Mr. Lea).

H. monticola, Blackb., sp. nov. Sat elongatus, postice leviter dilatatus; sat nitidus; ferrugineus; supra pilis brevissimis sparsim vestitus; clypeo crebre ruguloso, antice profunde arcuatim emarginato; labro clypei planum vix attingenti, antice (capite oblique a tergo viso) manifesto concavo; fronte minus crebre vix fortiter punctulato; clypeo fronteque ut plana disparia visis; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 9 ad 5 latiori, antice modice angustato, supra minus crebre minus fortiter punctulato (puncturis circiter 18 in segmenti longitudine), lateribus (superne visis) leviter arcuatis antice sat fortiter deplanatis, angulis anticis sat acutis sat productis posticis (superne visis) rectis, basi bisinuata, margine basali ad latera perspicue magis elevato; elytris subfortiter sat crebre punctulatis (trans elytron puncturis circiter 25), interstitio subsuturali sat fortiter convexo; pygidio sat crebre minus fortiter punctulato; coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series subtiliter sat sparsim punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} manifeste breviori, 3° sat æquali (vel vix longiori); unguiculis appendiculatis. Long., 5$\frac{3}{5}$ l.; lat., 2$\frac{3}{5}$ l.

Structurally near *H. obesus*, Burm., but of much narrower and more elongate build, with the subsutural interstice of the elytra quite strongly convex (in *obesus* that interstice is unusually flat), also with puncturation of elytra closer, etc. I think both sexes are before me, judging by the flatter ventral segments of what I take to be the male, which also has tarsi a little longer and more slender. The strong expansion of the lateral margin of the pronotum at the front angles is a striking character (which however is present in *H. obesus* also). The pilosity of the elytra is very little noticeable except in quite fresh specimens.

Tasmania; Mount Wellington (Mr. Griffith).

H. intermedius, sp. nov. Modice elongatus, postice parum dilatatus; sat nitidus; ferrugineus; supra pilis brevibus adpressis sat crebre vestitus; clypeo (hoc antice profunde arcuatim emarginato) fronteque crebre rugulosis, fere ut planum continuum visis; labro clypei planum nullo modo attingenti, antice (capite a tergo nonnihil oblique viso) manifesto concavo; antennis 9-articulatis, articulo 3°

quam 2^{us} breviori; prothorace quam longiori ut 27 ad 14 latiori, antice minus angustato, supra crebre subtiliter punctulato (puncturis circiter 30 in segmenti longitudine), lateribus (superne visis) minus arcuatis, angulis anticis sat acutis sat productis posticis (superne visis) obtuse rectis, basi leviter bisinuata, margine basali ad latera paullo magis elevato; elytris minute granulatis, confertim subtiliter squamose punctulatis (trans elytron puncturis circiter 40); pygidio subtilius sat crebre punctulato; coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series fortius sat crebre punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} sat breviori, 3° fere æquali; unguiculis appendiculatis. Long., $4\frac{2}{5}$ l.; lat., $2\frac{1}{5}$ l.

The structure of the labrum in this species renders it somewhat intermediate between the aggregates A and AA (in the tabulation), being visible as part of the outline of the head if regarded from behind only a little obliquely, but invisible from further back. It differs from all the other species (of AA), having the clypeus deeply emarginate, except *excisus*, Blackb., by its very much finer and closer puncturation. Compared with *excisus* it is smaller, with the pronotum considerably less closely (and the elytra considerably more finely) punctulate. I believe the unique type to be a male. The prothorax is not much but very distinctly narrower than that of the next species, from which however it differs widely by characters noted below.

New South Wales; Blue Mountains.

H. thoracicus, sp. nov. Modice elongatus, postice parum dilatatus; sat nitidus; ferrugineus; supra pilis brevibus fere adpressis vestitus: clypeo crebre ruguloso, antice profunde arcuatim emarginato; labro clypei planum nullo modo attingenti, antice (capite a tergo nonnihil oblique viso) manifesto concavo; fronte fortiter sat crebre punctulata; clypeo fronteque fere planum continuum efficientibus; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori duplo latiori, antice parum angustato, supra subtilius sat crebre punctulato (puncturis circiter 18 in segmenti longitudine) lateribus (superne visis) minus arcuatis, angulis anticis sat acutis sat productis posticis (superne visis) rectis, basi vix sinuata, margine basali ad latera haud magis elevato: elytris crebre subtiliter punctulatis (trans elytron puncturis circiter 28); pygidio minus crebre minus fortiter punctulato; coxis posticis quam metasternum sat brevioribus, quam segmentum ventrale 2^{um} modice longioribus; femoribus posticis inter series subtilius minus sparsim punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} sat multo (quam 3^{us} vix) breviori; unguiculis appendiculatis. Long., $3\frac{4}{5}$ l.; lat., $1\frac{4}{5}$ l.

The structure of the clypeus and labrum is as in *H. intermedius*, Blackb. From it however this species differs in many characters. It is notably smaller, its prothorax is quite fully twice as wide as long, with the front much less narrowed, and the base all but non-sinuate, and the whole dorsal surface is much less closely punctulate. I believe the two specimens before me to be males.

New South Wales; exact locality not known.

H. additus, sp. nov. Minus elongatus, postice leviter dilatatus; sat nitidus: ferrugineus; supra pilis brevibus suberectis sat crebre vestitus; clypeo crebre ruguloso, antice late leviter emarginato; labro clypei planum vix attingenti, antice (capite a tergo oblique viso) truncato (vel nonnihil concavo); fronte fortius sat crebre punctulata; clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 7 ad 4 latiori; antice vix angustato; supra fortius vix crebre punctulato (puncturis circiter 18 in segmenti longitudine), lateribus (superne visis) sat arcuatis, angulis anticis sat acutis sat productis posticis (superne visis) sat rectis, basi leviter bisinuata, margine basali ad latera sat magis elevato; elytris fortiter vix crebre punctulatis (trans elytron puncturis circiter 22); pygidio fortius sat crebre punctulato; coxis posticis quam metasternum sat brevioribus quam segmentum ventrale 2^{um} sat longioribus; femoribus posticis inter series subtilius sparsissime punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} multo (quam 3^{us} nonnihil) breviori; unguiculis appendiculatis. Long., $4\frac{1}{2}$ l.; lat., $2\frac{1}{4}$ l.

The form of the labrum renders this species intermediate between the two main divisions of *Heteronyx*. It cannot be said that when the head is viewed obliquely from behind the outline is not trilobed in a sense, but the middle division (*i.e.*, the outline of the labrum) appears as a straight line or might almost be called faintly concave, and moreover the labrum does not quite reach the level of the clypeus. A few difficult species such as this is are, I fear, inevitable in the grouping of any large number of allied species. The prothorax almost as wide in front as at the base, and at its widest in the middle distinguishes the present insect from most of its congeners. The unique type is probably a male.

Western Australia; Swan River (Mr. Lea).

H. blandus, sp. nov. Modice elongatus, postice vix dilatatus; nitidus; pallide ferrugineus; supra pilis brevibus adpressis sparsim vestitus; clypeo crebre ruguloso, antice late subemarginato; labro clypei planum vix attingenti, antice (capite a tergo oblique viso) truncato (vel nonnihil concavo); fronte grosse sat sparsim punctulata; clypeo fronteque ut plana sat disparia visis; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 16 ad 9 latiori, antice sat angustato, supra fortius sat sparsim punctulato (puncturis circiter 12 in segmenti longitudine), lateribus (superne visis) sat rotundatis, angulis anticis vix acutis parum productis posticis (superne visis) rotundatis, basi vix manifeste bisinuata, margine basali subtili ad latera vix magis elevato; elytris sparsius minus fortiter punctulatis (trans elytron puncturis circiter 20); pygidio subtilius sat crebre punctulato; coxis posticis quam metasternum maxime (quam segmentum ventrale 2^{um} nonnihil) brevioribus; femoribus posticis inter series sparsim subtilius punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} parum breviori 3° sat æquali; unguiculis appendiculatis. Long., $2\frac{2}{5}$ l.; lat., $1\frac{1}{5}$ l.

The notes on the labrum of *H. additus*, Blackb., may be applied to this species also. The front of the clypeus, however, is much less emarginate—in fact, it might be called subtruncate, but from a certain point of view seems to be feebly emarginate. It is easily recognizable by the characters cited in the tabulation. I have seen several specimens, but have not detected any characters likely to be sexual.

South Australia; Tailem Bend (Mr. Griffith).

H. prosper, sp. nov. Modice elongatus, postice vix dilatatus; sat nitidus; obscure ferrugineus; supra pilis brevibus suberectis sat crebre vestitus; clypeo (hoc antice leviter late emarginato) fronteque crebre rugulosis, fere planum continuum efficientibus; labro clypei planum vix attingenti, antice (capite a tergo oblique viso) concavo; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 13 ad 7 latiori, antice leviter angustato, supra crebre minus fortiter punctulato (puncturis circiter 21 in segmenti longitudine), lateribus (superne visis) sat rotundatis, angulis anticis sat rectis parum productis posticis (superne visis) rotundatis, basi nonnihil bisinuata, margine basali subtili ad latera haud magis elevato; elytris granulatis crebre minus fortiter punctulatis (trans elytron puncturis circiter 24); pygidio sat crebre minus fortiter punctulato; coxis posticis quam

metasternum multo brevioribus, quam segmentum ventrale 2^{um} vix longioribus; femoribus posticis inter series minus subtiliter minus sparsim punctulatis; tibiis anticis extus tridentatis: tarsorum posticorum articulo basali 2° sat æquali, quam 3^{us} longiori; unguiculis appendiculatis. Long., $3\frac{1}{2}$ l.: lat., $1\frac{3}{4}$ l.

This species is easily recognizable by the characters cited in the tabulation. The labrum (viewed as part of the outline of the head) is so decidedly concave that there can be no hesitation about referring the insect to Group IV. rather than to any of those groups having the outline of the head trilobed. The female is a little more strongly punctured than the male.

Western Australia; Geraldton, etc.

H. relictus, sp. nov. Modice elongatus, postice vix dilatatus; sat nitidus; ferrugineus; supra pilis brevibus adpressis sat sparsim vestitus; clypeo crebre ruguloso, antice late leviter emarginato; labro clypei planum fere attingenti, antice (capite a tergo oblique viso) concavo; fronte grosse minus crebre punctulata, antice subperpendiculari; hac clypeoque ut plana valde disparia visis; antennis 9-articulatis, articulo 3° quam 2^{us} breviori; prothorace quam longiori ut 11 ad 6 latiori, antice sat angustato, supra minus fortiter minus crebre punctulato (puncturis circiter 17 in segmenti longitudine), lateribus (superne visis) sat rotundatis, angulis anticis vix acutis minus productis posticis (superne visis) obtusis bene definitis, basi nonnihil bisinuata; margine basali sat æquali; elytris granulatis, sat crebre vix fortiter punctulatis (trans elytron puncturis circiter 26); pygidio sparsim grosse punctulato; coxis posticis quam metasternum multo brevioribus, quam segmentum ventrale 2^{um} parum longioribus; femoribus posticis inter series sparsius sat fortiter punctulatis; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2^{us} nonnihil breviori, quam 3^{us} vix longiori; unguiculis appendiculatis (nonnihil subbifidis). Long., $3\frac{1}{4}$ l.; lat., $1\frac{3}{5}$ l.

The claws of this species are somewhat intermediate between appendiculate and bifid; a note regarding them will be found under Group III. In Group IV. it is quite easily recognizable by the characters cited in the tabulation. If its claws were regarded as bifid it would stand in the tabulation of Group III. beside *H. granum*, Burm., from which, *inter alia multa*, its very different labrum separates it widely.

South Australia; Noarlunga (Mr. Griffith).

RUTELIDES.

SAULOSTOMUS.

I propose to substitute the name *Saulostomus* (?) *collaris* for *Aneurystypus collaris*, Blackb. The reasons for this change will be found set forth below under the name *A. collaris*.

DYNASTIDES.

PSEUDORYCTES.

P. monstrosus, Blackb. After an interval of fifteen years a second specimen of this magnificent insect has come before me, and has been presented to me by Mr. French. It was captured in the same region (North-West Australia) as the type. There is an unfortunate *lapsus calami* in my note following the description (Tr.R.S., S.A., 1895, p. 40). The Latin diagnosis correctly indicates the colour of the head elytra and pygidium as "black," but in the notes I have referred to the "black head, prothorax, and pygidium." Therefore the following correction is required (*loc. cit.*, line 8): for "prothorax" read "elytra."

ANEURYSTYPUS.

A. collaris, Blackb. I have acquired some specimens taken at Eucla of the insect which I described under this name. The original type had lost its claws, and now the examination of these fresh specimens reveals the fact that the claws are unequal and that therefore the species is a *Rutelid*. Its resemblance to *Aneurystypus* (*e.g.*, *A. calvus*, Blackb.) is really very remarkable, the claws being disregarded and also characters of the labium, etc., which are difficult to see without treatment that is undesirable in the case of a unique specimen. Its divergence from *Aneurystypus* in having its pronotum unarmed I referred to in describing it. I think it must be regarded as representing an undescribed *Rutelid* genus, but it is so close to *Saulostomus* that it will perhaps be best to refer it to that genus provisionally. Its tarsi are evidently longer and more slender than those of *S. villosus*, Waterh. (the type of the genus), but this appears to be the case also in some species which have been attributed to *Saulostomus* by Ohaus. I have dissected the mouth organs of a specimen and find that the pointed apical part of its labrum is bent down and concealed as in *S. villosus*, and the apex of its labium is slightly produced in a very wide open angle. This character is perhaps hardly sufficient to justify a new generic name, and I do not find any other except that of the tarsi already referred to. It is possible that the greatly elongated flabellum of the antennæ (considerably longer than the preceding joints together) may separate this insect from *Saulostomus*, but unfortunately Mr. Waterhouse's description of *Saulostomus* does not refer to the antennæ, and my specimen of *S. villosus* has lost its antennæ. The genus *Homotropus* (unknown to me except by description) seems to have similar antennæ but different mouth organs.

A. pauxillus, sp. nov. Brunneo-ferrugineus; subtus dense longe fulvo-hirsutus; capite sat crebre, prothorace inæqualiter sat subtiliter (hujus lateribus æqualiter modice arcuatis, basi haud marginata, angulis posticis rotundatis), pygidio ad latera sat crebre dupliciter in medio sparsim minus subtiliter, elytris (his plus minusve striatis) sat seriatim sat fortiter, punctulatis; mento antice fortiter compresso elevato, antennarum flabello quam articuli ceteri conjuncti vix longiori; prothorace antice impresso, margine antico in medio acute elevato; tibiis anticis extus tridentatis. Long., 5-6 l.; lat., $3\frac{1}{5}$-$3\frac{2}{5}$ l.

This species is at once separable by its pronotum not margined at the base from all its known congeners except *A. Richardsæ*, Blackb., with which, however, it is somewhat closely allied. It is considerably smaller than that species and of darker colour, the punctures of the dorsal surface in general evidently deeper and less fine, and the elytra more definitely striate. The outline of the prothorax is considerably different, the lateral margins being lightly arched in a continuous curve from base to apex, whereas in *Richardsæ* these margins are more like two curves meeting almost subangularly slightly in front of the middle of the segment. If the prothorax of *Richardsæ* be viewed from directly above the sides appear almost straight and parallel from base to beyond middle and then converging in a strong curve to the front margin, while from a similar point of view they appear as a continuous curve in *pauxillus*. The hind angles viewed from above are bluntly rectangular in *Richardsæ* and quite rounded off in *pauxillus*. The front part of the mentum is more compressed and elevated than in any other *Aneurystypus* known to me. In *A. calvus*—the type of the genus—the mentum is longitudinally concave (although the concavity does not reach the front margin), but in other species the concavity is only very near the base with the front part becoming more or less compressed, and in *pauxillus* the compressed prominence is very strong and begins to rise almost from the hind margin of the mentum. One of the specimens before me has tarsi a little shorter and pygidium less convex than the others: it is probably a female, though I should have expected much more disparity between the sexes.

Queensland; Cunnamulla (Mr. Hardcastle, sent by Mr. Lea).